

National Collaborating Centre  
for **Healthy Public Policy**

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# HEALTH AUTHORITIES AND THE BUILT ENVIRONMENT: ACTIONS TO INFLUENCE PUBLIC POLICIES

INTERVIEW REPORT | NOVEMBER 2012



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sur les politiques publiques et la santé

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## CREDITS

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## **ABOUT THE NATIONAL COLLABORATING CENTRE FOR HEALTHY PUBLIC POLICY**

The National Collaborating Centre for Healthy Public Policy (NCCHPP) seeks to increase the expertise of public health actors across Canada in healthy public policy through the development, sharing and use of knowledge. The NCCHPP is one of six Centres financed by the Public Health Agency of Canada. The six Centres form a network across Canada, each hosted by a different institution and each focusing on a specific topic linked to public health. In addition to the Centres' individual contributions, the network of Collaborating Centres provides focal points for the exchange and common production of knowledge relating to these topics.



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## INTRODUCTION

The mandate of the National Collaborating Centre for Healthy Public Policy (NCCHPP) is to increase the expertise of public health actors across Canada in healthy public policy through the development, sharing and use of knowledge. Health authorities constitute a key group of stakeholders targeted by the knowledge translation, synthesis and exchange activities integral to the fulfillment of the Centre's mandate. It is within this context that the NCCHPP has developed various projects tied to public policies that inform the built environment and has been working with the Healthy Canada by Design coalition. The efforts of this coalition are focused on promoting certain public policies that can lead to the creation of healthier built environments – such as transportation and urban planning policies.

Under the direction of the Heart and Stroke Foundation of Canada, this coalition includes six health authorities (Vancouver Coastal Health, Vancouver Island Health, Fraser Health, Peel Public Health, Toronto Public Health, the Direction de santé publique de Montréal), the Canadian Institute of Planners and the NCCHPP. The Canadian Partnership Against Cancer (CPAC), which allocates significant resources to various projects with a primary prevention approach, is funding this coalition, along with six others, under a program known as Coalitions Linking Action and Science for Prevention (CLASP). The program is aimed at intensifying actions and promoting collaboration between actors in Canada who propose innovative, evidence-based interventions intended to act on the determinants of cancer and certain other chronic diseases.

This document is structured around interviews that François Gagnon from the NCCHPP conducted with professionals working on the HCBD project in each of the health authorities involved. The 3 authorities in British Columbia were assisted in responding by an urban planning consultant. The respondents are listed below. The interviews were carried out through email exchanges between mid-December 2011 and mid-March 2012, that is, toward the end of the project. The email interview technique was adopted so as to allow for a relatively unrestricted and open exploration of the questions addressed. Four dimensions of the actions taken by the health authorities were explored in the interviews:

1. The pragmatic and programmatic contexts surrounding their efforts to influence public policies that inform the built environment;
2. The logic underpinning the actions carried out within the context of the CLASP project specifically;
3. The lessons learned in the wake of their actions and;
4. The policy-related implications of their actions.

The resources available in each health authority to answer these questions varied, and the interviews thus vary in length and in the nature of their content.

Among other things, the reader will find at the end of the document a conclusion written by François Gagnon. This conclusion provides an overview of the group of interviews, identifying commonalities, along with some notable features of the health authorities' experiences within the context of the CLASP project. The NCCHPP's conclusion reflects on

various dimensions of public policies in an effort to bring to light some of the issues tied to the efforts undertaken by the health authorities to influence these policies.

The aim of this document is to highlight the actions of the health authorities involved in the coalition and to allow for an assessment of some of their implications with respect to public policies that inform the way built environments are developed or modified. The portraits provided here are thus meant to serve not only as sources of inspiration, but also as invitations to make adjustments based on the circumstances surrounding the reader's work.

The following people participated in the interviews:

- Claire Gram (Vancouver Coastal Health Authority) and Heather Evans (Heather Evans Consulting),
- Julia McFarlane (Vancouver Island Health Authority) and Heather Evans (Heather Evans Consulting),
- Lori Smart, Jami Brown, and Helena Swinkels (Fraser Health Authority) and Heather Evans (Heather Evans Consulting),
- Christine Gutman and Bhavna Sivanand (Peel Public Health),
- Shawn Chirrey (Toronto Public Health),
- François Thérien and Louis Drouin (Direction de santé publique de Montréal).

# 1 VANCOUVER COASTAL HEALTH AUTHORITY

## Question 1:

**How and why did policies informing the built environment become a focus of work for staff in Vancouver Coastal Health (VCH) and how is this work currently organized (links to municipal/regional administration, resources dedicated to this work, position in the organizational structure, senior management support, role of CLASP in the effort)?**

In 2006 there were a number of developments both internal to VCH, and external, which led to healthy built environment (HBE) becoming an area of major policy focus:

VCH's Service Plan (2011 to 2014) builds a platform for HBE work: "People with chronic conditions represent approximately 35% of the VCH population and consume a significant portion of the available resources. Chronic diseases are more common in older populations and it is projected that the prevalence of chronic conditions across British Columbia could see a 58% increase over the next 25 years and be a significant driver of demand for health services." The Plan identifies that "Community efforts to support healthy living through planning, policy, constructed environments and other mechanisms are critical to decreasing the number of British Columbians who develop chronic diseases. VCH is supporting local governments and other community stakeholders in the development of comprehensive strategies to address healthy living at the community level."

First I'll describe the developments that are internal to VCH. In 2006, the VCH Population Health Team was created and the position of Regional Coordinator for Healthy Communities and Community Food Security was created (now called Population Health Policy Consultant). The Population Health Team reports to the Chief Medical Health Officer (MHO) for VCH. Its purpose was to address the determinants of health through policy, partnership, advocacy and leadership. We have supportive leadership for HBE work from VCH Chief MHO Dr. Patricia Daly. She has authored input on regional growth plans, submitted OpEds to national and provincial media, and been invited to speak on the topic at conferences and workshops.

Our HBE work with regional and local governments employs a team approach with Medical Health Officers, Community Developers, and Health Protection staff – with efforts often supported and coordinated by the Population Health Policy Consultant. A VCH advisory committee of senior staff provides overall direction and priority for HBE work including semi-annual update and strategy sessions (composition includes Medical Health Officers, Mental Health, and Health Protection).

And now I will describe some elements of provincial development and support for HBE. A high level of collaboration to gain a better understanding of the field for health authorities has taken place. In 2006 the Provincial Health Services Authority (PHSA) hosted a one-day workshop on HBE, which provided the foundation for the establishment of the British Columbia HBE Alliance. PHSA continued to play a lead role provincially and developed many of the resources that enabled the health authorities to participate.

In 2009, the Smart Growth Creating Healthier Communities Guide<sup>1</sup> was published, as was the Provincial Health Service Authority's Planning 201 for Health Professionals.<sup>2</sup>

Also of note is that in 2006 the Province of British Columbia began a Model Core Programs<sup>3</sup> process and around 2009 the model core program for Healthy Community Environments was drafted with a section on HBE. The Model Core Programs provided background, rationale and evidence for the role of public health in the 21 core programs.

And finally, on a national level the Urban Public Health Network had a working group on HBE, which led to the CLASP proposal and brought current knowledge to the MHOs. CLASP provided VCH with a national backdrop for HBE work, cross-national learning and knowledge exchange opportunities, and networking to advance the field. VCH's participation in the Healthy Canada by Design CLASP brought resources to supplement efforts in building internal capacity for HBE policy work and building relationships and structures for policy input at local and regional levels. CLASP was the big boost that got us out of our chairs and into the communities!

#### **Question 2:**

**What policies have you been concentrating on and what is/are the logics behind the choices that you made? For example, were your choices made on the basis of windows of opportunity, potential population health impacts of those policies, specific needs to improve specific health outcomes, or other considerations?**

VCH has been working with municipalities on HBE policies at a community level, with a particular focus on community-level Official Community Plans (OCPs): long range policies and land use plans that legislatively bind elected officials to make decisions in accordance with the plans. VCH chose to focus on the OCPs because they are foundational policies required by legislation and we needed to start somewhere. All along we have said that our goal is to create policy change AND build the relationships that facilitate better collaboration for implementation.

At a local level, VCH has been working on OCPs with municipalities through joint Memoranda of Understanding (MOUs). The MOUs are endorsed by the municipal Council and the VCH Executive. The MOUs set out expectations and commitments (for both the municipality and the health authority) and clarify that VCH is involved throughout the OCP process and wants to be proactively involved as a partner (i.e., more than reactively providing feedback on policy drafts as a 'stakeholder'). Through consistent involvement we have found so far that HBE is included throughout the process and the plan, and there is a strong platform from which VCH is able to support the plan and its endorsement by Council.

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<sup>1</sup> See: <http://www.smartgrowth.bc.ca/Portals/0/Downloads/CreatingHealthyCommunitiesGuide.pdf>.

<sup>2</sup> See: [http://www.phsa.ca/NR/rdonlyres/1BA928BA-FD62-40A8-B4D7-0278A3B80AD1/0/KnowledgetoActionFramework\\_final.pdf](http://www.phsa.ca/NR/rdonlyres/1BA928BA-FD62-40A8-B4D7-0278A3B80AD1/0/KnowledgetoActionFramework_final.pdf).

<sup>3</sup> See: <http://www.health.gov.bc.ca/public-health/core-programs/health-improvement/community/model-core-review.html>.

At a regional level of planning, VCH has been providing a health lens on a Regional Growth Strategy, a Regional Sustainability Plan, and a regional long-range transportation plan. The goal in working with regional levels of government is to help address the large number of communities (14 municipalities, 5 regional districts and 14 band councils) and the relatively small resources of the health authority. Also, the Regional Growth Strategy sets the context for the OCPs. In a few cases we have worked more opportunistically. For example, in the Sunshine Coast Regional district they did not get the political buy-in to proceed with a Regional Growth Strategy so VCH supported their Regional Sustainability Planning process with input.

VCH's policy input to local plans has focused on the following key HBE areas: equitable and inclusive community, environmental health, active transportation, housing, healthy eating and food security, safety and well-being, and physical activity and recreation. These areas strongly relate to the content areas that municipalities are required (by legislation) to include in their OCPs, and our experience demonstrates that these areas have surfaced as the most successful means of applying a health lens and providing input related to the public health objectives of social inclusion.

The HBE objectives quite strongly support sustainability planning objectives. The health lens lends a focus (that may have otherwise not been included in the plan) to consideration for vulnerable populations and health equity, as well as food security. The strengthening of health objectives or their addition into the local municipal plan also brings into focus that the purpose of community planning is to improve the health and well-being of all the people (including the broad spectrum of the population, current and future).

### **Question 3:**

**You have alluded to questions of inequalities or inequities. For instance, you have mentioned social inclusion as an objective and have used the term “vulnerable populations.” Which groups do you think are currently excluded and how are they excluded? And what populations are vulnerable, and why are they?**

To clarify some definitions: **health inequalities or disparities** are ‘natural’ variations between population groups, biologically based. **Health inequities** are inequalities deemed unfair or unjust and avoidable, rooted in social justice.

The conditions in which we live manifest the social determinants of health – education, income, employment, housing, early childhood development, etc. Analysis and observation can reveal communities and neighbourhoods where there is a concentration of people who are vulnerable to poor health and living circumstances (e.g., lower-income areas, higher rates of chronic diseases, etc.). There is little doubt, and much evidence, that lower-income populations experience poorer health and worse access to services than middle- and high-income populations. This makes them vulnerable. VCH aims to both improve the health of all as well as target the needs of those most at risk. If we only focused on universal services and supports we could inadvertently increase inequities.

One approach is to target certain segments of the population when we know that they are at risk. For example, we have long known that the early experiences of a child establish a foundation for the child's future. Investments in children all pay off by giving them a better start; the effect is cumulative, with long-term ramifications. VCH can help bring this perspective to community and land use planning, ensuring that there are dwellings for families of all incomes to live in a given neighbourhood. University of British Columbia research shows that children have the best social development outcomes when they live in mixed-income neighbourhoods, that they can access play space nearby, can walk to school, etc.

VCH is interested in working from three different angles – with partners – to decrease and alleviate inequities and social exclusions.

First, reducing income and health inequities. While local governments have a role in helping to mitigate the impact of income inequities, a broader advocacy is required (living wage etc.). That is the elephant in the room. The VCH Population Health team has a role in this broader advocacy.

Second, being part of community engagement and influencing decision making. In making land use decisions, whether it is a new plan or a site development, VCH can help to reach out and access people who are strongly affected by but not usually involved in government decision making, and VCH can play a role in seriously considering their interests as a priority. One example can be seen in a community with which VCH has partnered for its OCP update: the VCH Community Developer has been working to connect groups across the community with the OCP process, bringing groups in that are not customarily involved in land use planning. This is valued by the municipality. Another strong influence comes from consistent messaging by VCH's MHOs, who are reminding municipal and community audiences that one of the big reasons that health is "at the planning table" is to ensure that we are planning for all the people, especially the people who less often advocate and organize to protect their own interests, i.e., they are not involved in a community meeting on a weekday evening.

Third, land use and policy planning. An HBE lens is an effective way to influence policies that will result in a more equitable geographical distribution of public and private resources to help mitigate the impact of health inequities. VCH has been bringing evidence, policy input and advocacy to influence OCPs to include a mix of housing types and affordability in neighbourhoods; to advocate for parks, active transportation infrastructure, and community facilities, particularly in lower income neighbourhoods; and to suggest that plans proactively ensure that residents can easily make healthy choices like walking to the grocery store, taking the bus, etc. In our 'car culture' people who don't drive tend to have poorer access. By ensuring that neighbourhoods are in walking distance and buses come regularly (predicated on mixed use and medium density), people have more equal access to employment, shopping, recreation, etc.

**Question 4:**

**VCH covers a large territory which includes built environments that present a wide diversity in terms of existing transportation modal share, land density, connectivity and mix of use, among others. These characteristics have important implications both in terms of the possibility of organizing and changing the urban systems and what the preferences of the residents in terms of transportation infrastructure and land use characteristics might be. How do you work with these tensions and the differences between sectors of your jurisdiction and the groups that inhabit them?**

Yes, it is quite true that VCH's region is made up of communities with diverse characteristics, size, and opinions and preferences! There are about 1.14 million people in our region. Eighty percent of the population live in about five relatively compact urban and suburban municipalities in the Metro Vancouver region. Twenty percent live in a much broader geographic area of the region, in many different and dispersed rural and remote communities. There are characteristics and realities of practice that take place in rural and small communities, versus urban and suburban communities. There are differences in the HBE elements mentioned (modal share, density, connectivity, mix of uses) as well as in regional and local government resources.

In smaller and more rural communities, we observe that there are fewer resources for community planning and all of the other things that the regional and local governments do. Much of the body of existing research and evidence for HBE work applies to urban and suburban settings, and is not as applicable to smaller communities; this underscores the importance of working with local communities to provide context specific assistance and support that is relevant. In rural areas there is generally a poorer health status for a variety of reasons. VCH has been spending some time to research the diversity of characteristics between communities: growing and shrinking populations, shifting economies from resource-based to different types of local economies that include tourism and recreation, young and aging communities, etc. There are also growing needs and opportunities (for VCH) to become more involved in aboriginal communities and to better understand how we fit into their community planning model.

As with all communities, we need to be very sensitive in how we apply general research in specific communities and that is where local knowledge is essential. This is particularly true as we work in rural communities where there has been little research done. This local knowledge comes from our local VCH staff, the local government staff and the community.

Regarding the tensions that necessarily arise as a result of competing visions of preferred futures, and the political nature of these debates in both rural and urban/suburban communities, we must be mindful of our role and ensure we back our positions with solid evidence.

In the last two years under CLASP we have been fortunate to work with communities whose goals have aligned quite well with sustainable planning agendas, and we have been able to support the planning direction. The issues have been more over degree than direction. We are aware however, that we may not always agree with local community direction and decisions that are made by local councils and boards.

In VCH, we have defined our goals to both include policy change and build relationships. We will need to rely on both our evidence and our strong relationships to continue to state positions that are in the best interests of health. And we want to begin our participation in the planning process as early as possible, so that we can identify issues that are of importance to health and attempt to address them, rather than waiting to get involved in the end which could result in confrontation and less satisfying results.

**Question 5:**

**In your view, what has been effective in your CLASP efforts and why?**

The CLASP project has been effective for VCH because it has allowed VCH to link up to a national movement, and has simultaneously given us the resources and flexibility to ‘act locally’ and meet our needs here on the ground. CLASP has really raised the profile of HBE work, by demonstrating that our HBE work is part of a groundswell of progressive practice that is happening across the country. Through CLASP, our ability to link up with different people, ideas, and resources has been extremely valuable. We really appreciate that the CLASP model has recognized the value of supporting work done on the ground (in health authorities and in communities), and that all needs and situations are unique in different locations and contexts. CLASP provided us with resources (including a planning specialist on contract) and the national tools and connections for VCH to work on relevant local and regional projects and support a ‘community model’ of practice, whereby we support the work of our VCH staff on the ground.

Internally (within VCH) through the CLASP initiative we have been able to incrementally develop a model of how to work on HBE that works for VCH. There are many staff and departments within VCH that are part of HBE subject matter (Health Protection, Population Health, MHO, Aboriginal Planning, Housing, and more), and we have been able to work with these groups to gradually build up awareness, buy-in, commitment, and practice at doing this work together. We have learned – through practice and reflection – how to form our VCH teams at a local level and allocate VCH staff’s roles in order to support communities most effectively. This approach of including VCH staff from various groups has provided us with a range of perspectives and angles about what is included in HBE work.

Externally, meaning our work with communities, CLASP has helped VCH to develop and hone the tools and approaches that are most effective in our work. For example, we have developed and adapted a Memorandum of Understanding agreement for defining and solidifying partnerships. We have also developed tools and resources that help us to proactively connect and work with the various audiences that are involved in land use planning processes: elected officials, community and stakeholders, and community/residents.

**Question 6:**

**Conversely, what has not been effective, and why?**

On the whole, the cross-national CLASP project did an admirable job of providing an overall framework that allowed for locally unique and relevant projects to take place. However, in retrospect, we think that some of the structures and ways of working together in the CLASP project could have been more effectively set up and implemented. Hopefully consideration of these ideas and suggestions will provide a positive contribution to growing our future work and partnerships.

The efforts to convene the CLASP project partners and participants from across the seven CLASPs (and from across Canada) to discuss progress were quite helpful at the beginning and the end of the CLASP project. However, the cross-CLASP gatherings were not as effective during the middle of the project. Instead, we feel that resources could have been more effectively spent by bringing together the partners within each of the CLASPs to work together in some greater detail to plan together and benefit from knowledge exchange.

Regarding participation in Healthy Canada by Design, outcomes and learning could be enhanced if a greater number of practising planners were involved from the provinces and communities that were engaged in the CLASP project, in order to bring their perspectives and often broadly-applicable advice. We appreciate CLASP's partnership with the Canadian Institute of Planners, and we think that, to complement this, the inclusion of planners from the project sites would have offered benefits to the project overall.

A third way to increase the effectiveness of CLASP would be to tighten up the HBE themes and focus areas. If each of the participating CLASPs worked together on unified HBE themes, we could together gain and share more collective experience and knowledge (e.g., key messages, indicators, etc.). During the recent CLASP project we were quite appropriately focused on outreach, creating relationships, and developing methods for infusing land use planning with health objectives. In the future, perhaps we could narrow the focus by identifying a few content areas (e.g., rural communities, transportation, food, etc.) in order to develop a deeper knowledge base. This can still leave some flexibility at the local level, but would serve to concentrate our efforts in both research and practice areas.

In terms of the British Columbia experience and involvement in CLASP, it would have been more beneficial if the resources allowed for more than one year of participation in order to achieve greater outcomes. Also, it would have been great if all five British Columbia health authorities had been involved in CLASP (only three of the five health authorities were involved, since the CLASP project was linked to the Urban Public Health Network and the three health authorities included in it). A final future-oriented thought about how we can be most effective in advancing our HBE field and practice. As a whole we need to give some thought to balancing the emphasis on research versus implementation, and balancing national-level direction with local-level practice.

**Question 7:**

**Were you surprised by any of the effects of your actions within CLASP – whether in a more positive or less positive way?**

I was surprised that our involvement in CLASP would result in or require so many presentations for various purposes and audiences. The results of a quick count: about five presentations and workshops within VCH to get colleagues on board and keep different groups and departments up to date; 18 external presentations with a variety of purposes from education and awareness about HBE to telling our story and what we have been learning; and about three or four within the CLASP initiative to continue the conversation throughout the project with colleagues.

I was also surprised that we achieved the objective of ‘getting health on the planning agenda’ so quickly. We began this work just a couple of years ago, and it seems that health is readily being included in planning processes without us having to ask and explain why we should be there. Our next focus will be on increasing the depth of knowledge, engagement, and inclusion of health in planning.

I appreciate how readily my VCH colleagues and our partners (municipalities, regional district) showed interest in the HBE work, and how readily they committed to partnerships and projects. We already had working relationships, and I think that this made it easier for them to be comfortable with jumping into HBE project work with us. Also, HBE is a growing field that we are hearing a great deal about in various sectors. I think that the links between built environment and health outcomes can be intuitively understood.

**Question 8:**

**From my understanding, your CLASP efforts have so far had significant effects on process but it would be premature to ask you to outline substantive policy changes that have resulted from this CLASP project. Is that an adequate reading of the situation?**

We have been working on three pathways to influence land use policies and plans that will result in healthier communities: developing our relationships with municipalities, participating in policy planning processes, and providing policy input.

It’s true that some policy changes as a result of our work are still to come. Some of the planning policy projects on which we have been working have not been completed yet, so we cannot yet identify which policies or components within these plans have been shaped by our input.

However, two planning processes on which we worked during the CLASP period have been completed and resulted in adopted plans. This provides a milestone and an opportunity to evaluate our impact, both by looking at the resulting plan and learning from reflective conversations and feedback from municipal staff.

First, the Metro Vancouver regional district adopted a Regional Growth Strategy in the summer of 2011. We provided policy input based on our ‘health lens’ review of drafts of the plan. Our interest and input generated some small policy and wording changes in the adopted plan. We were encouraged that the regional district included a “door opening” policy to encourage further collaborative policy work between the regional district and health authorities: “Collaborate with health authorities to advance measures to promote healthy living through land use policies” (Policy 4.2.3 of the Metro Vancouver Regional Growth Strategy). We are currently working with Metro Vancouver to identify policy projects on which we will work collaboratively.

Second, the District of North Vancouver’s OCP was adopted in 2011. We can trace some policy changes to our input: for example, the inclusion of policies related to food availability and access. We have been told by municipal staff that there are many ‘built environment’ policies that VCH was instrumental in supporting; if VCH had not been a strong policy supporter of progressive policies for connected neighbourhood centres and active transportation, it is quite possible that these policies would have been diluted in the plan. Also, the ongoing involvement and support from VCH in social and community services with the District (in the OCP process, and at many other planning tables in the community) was recognized as a contributor to the OCP social development policies. We are currently working with the District of North Vancouver to implement the OCPs, in particular with neighbourhood-level policy work.

For both of the examples above, our relationship continues beyond the adoption of the plan, and our role in the implementation of these plans is critical.

**Question 9:**

**You emphasize collaboration with other actors in your work. This mode of engagement entails that, while trying to change some of their other aspects, you accept the basic premises of their policies and practices. For example, it might mean that you have to accept that the regional growth policy will call for important road capacity addition and scattered low density residential developments – while the ideal, for all kinds of public health concerns, might be somewhat different. Could you weigh the pros and cons of collaboration and a different mode of engagement that we sometimes see in public health in files such as tobacco control – a mode that has been qualified by some as confrontational?**

Since health authorities do not have legislative authority for most elements of the ‘HBE’ agenda, collaboration is certainly our best option for moving our objectives forward!

We have found that our collaborative approach has not limited our voice and our progress. We have provided our input, from a health perspective, on various aspects of several plans including a regional growth strategy – for both things we like and things we think can be improved. We have not felt that we needed to hold back our input on policies and directions that we do not support from a health perspective. We would not condone proposed policies and plans that do not make sense from a health perspective – but nor do we have control over them.

In situations where we are not supportive of policy directions being proposed, we would seek to be involved in making our concerns known at an early stage in the planning process. We find that it is definitely more effective to begin input and advocacy with staff while the policy is still being developed and continue to be involved throughout the process, than to wait until the tail end of the planning process (e.g., a public hearing) and strike with a confrontational and antagonistic approach that makes it difficult to accommodate our wishes and may damage relationships.

The HBE field is a new area for us. Local governments have been doing this work for a long time. We are aware that it would limit our relationships if we tried to be overly prescriptive. As we learn more about the field, what approaches work, and as additional evidence becomes available, we may increase the intensity of our assertions over time.

We find that professional staff in local governments (e.g., planners) readily sees the alignment of public health and sustainability policy objectives. In our experience, elected officials that we have worked with are also supportive of the health perspective on policy issues. If the community (the electorate) is educated and aware of the health benefits of certain policy directions, their advocacy is bound to increase traction with the elected officials and result in political votes for policies that encourage a healthy community. For this reason, it is important that we include education and awareness as part of our HBE projects.

**Question 10:**

**Can you identify some “policy fields” (e.g., food policies) or “subfields” (e.g., urban agriculture) you feel have been or will be easier to influence in the near future – and in which you can see important benefits for population health coming sooner rather than later? And can you tell us why you think so?**

We are devoting some attention to transportation (particularly active transportation). Linking land use and transportation planning to facilitate active modes, and a well-designed investment in active transportation infrastructure, is a ‘win-win’ proposition for public health and local governments. Public health objectives are met as residents get physical exercise from active transportation, facilitated by a comfortable, safe, and convenient active transportation infrastructure; and local sustainability objectives are met as residents choose modes of active transportation instead of driving. We are currently working with TransLink (regional transportation authority) to develop our depth of tools and understanding in this area. Health involvement in transportation is supported by a body of evidence that links walkable (and bikeable and transit-friendly) neighbourhoods with better health outcomes. Municipal decisions and investments in transportation have a lot of influence on the built environment and health outcomes. One ‘catch’ that it is important to recognize is that major transportation infrastructure dollars come from senior levels of government, not from the local level. Therefore it is important to recognize that our work on transportation needs to appropriately target local, regional, provincial and federal scales.

Food security and urban agriculture is a further area for future collaboration and involvement. Public health's interest in seeing local-scale policies and investments in this area is well aligned with significant public interest. For local governments this policy area is emerging, and best practices are being developed. Now is an opportune time for public health to bring the evidence and public health objectives to the table, to help strengthen the 'case' for local leadership and sustained action.



## 2 VANCOUVER ISLAND HEALTH AUTHORITY

### Question 1:

**How and why did policies informing the built environment become a focus of work for staff in Vancouver Island Health Authority (VIHA) and how is this work currently organized (links to municipal/regional administration, resources dedicated to this work, position in the organizational structure, senior management support, role of CLASP in the effort)?**

In general, VIHA's public health program is informed by the British Columbia Ministry of Health's Core Programs in Health Improvement and Environmental Health.

In terms of structure, previously it was the role of VIHA's Population and Public Health Observatory to investigate and research public and population health issues, including healthy built environment (HBE), that affect us locally, provincially and nationally. Now that role falls to public health and the Medical Health Officers. The Medical Health Officers for the VIHA oversee a wide variety of initiatives designed to promote and protect public and population health, including a HBE. The Chief Medical Health Officer has been actively involved as an advocate for HBE issues, and Medical Health Officers have also provided an advisory role in formulating HBE projects.

VIHA staff involved in recent HBE projects include the Chief Medical Health Officer and professional staff in Public and Environmental Health, Planning and Community Engagement, and others. VIHA staff take on HBE projects based on their areas of expertise: policy analysis, environmental health and air quality, community engagement, etc.<sup>4</sup>

CLASP provides capacity to VIHA to work on the HBE project by supporting the VIHA team's expertise in health and community engagement knowledge with a link to community planning and development.

### Question 2:

**What policies have you been concentrating on and what are the logics behind the choices that you made? For example, were your choices made on the basis of windows of opportunity, potential population health impacts of those policies, specific needs to improve specific health outcomes, or other considerations?**

VIHA's HBE focus areas have in part emerged from and been informed by the Ministry of Health's Core Programs, in part by concerns raised by communities that VIHA serves, and in part by windows of opportunity:

- One project took advantage of a new hospital building to study how HBE principles can be incorporated into health facilities, and the successes and challenges with incorporating them into the new facility.

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<sup>4</sup> Links to applicable organizational charts: [http://www.viha.ca/NR/rdonlyres/2D294ECF-1559-4956-B3D1-5F6514BE64D5/0/15\\_public\\_health.pdf](http://www.viha.ca/NR/rdonlyres/2D294ECF-1559-4956-B3D1-5F6514BE64D5/0/15_public_health.pdf) and [http://www.viha.ca/NR/rdonlyres/2CF71469EFFE4C68-A1B8-5529114DA814/0/11\\_planning.pdf](http://www.viha.ca/NR/rdonlyres/2CF71469EFFE4C68-A1B8-5529114DA814/0/11_planning.pdf).

- Another project that assessed the air quality of a local neighbourhood, as impacted by land, air and water transport concerns, was prompted by the neighbourhood requesting support from VIHA.
- VIHA reviewed and provided input on the Capital Regional District's Regional Sustainability Strategy, taking advantage of the document's development to encourage positive long-term health outcomes in VIHA's most populated area.

VIHA is a member of the Healthy Built Environment Alliance, leveraging the wide variety of stakeholders in that group to identify new potential policies and tools to make use of.

VIHA has played a leadership role in bringing various agencies and parties together to learn about and act on air quality issues, with the purpose of better coordination and action to improve air quality and health. This need was identified by community planners. Examples of two recent projects are (1) an awareness-raising workshop about regional air quality that brought together and transferred knowledge to local policy makers and provided an opportunity to discuss practical implications; and (2) coordinating and advancing the work of a multi-agency group on regional air quality issues.

### **Question 3:**

**What population sub-groups do you think are the most affected by the policies you are trying to change, and how are they affected?**

Perhaps this question is best explored with a couple of project examples. First, an air quality example. VIHA works with other agencies and communities on initiatives to improve regional and local air quality. By supporting community/neighbourhood level work, VIHA plays a part in resolving environmental health problems experienced by residents facing a particularly high health burden due to the location of their residences and health conditions. VIHA loans air quality monitoring equipment to communities and local governments to monitor community/neighbourhood conditions. The collected data are often used by communities and neighbourhood groups to advocate for changes to the sources of poor air quality and regulations surrounding air quality in general. People who are young, old, asthmatic or have pre-existing conditions often suffer the most from poor air quality. Also, over the past several years VIHA has supported (with research, etc.) a neighbourhood association whose residents collectively bear a disproportionately high health 'cost' from regional ground, marine and air transportation. They are advocating for regulatory change and monitoring of air quality.

Second, an example from our recent project about how to create health facilities that are healthiest for the users and for the neighbourhood. The main questions we asked were, "What process and design characteristics will create healthier health facilities?" and "How can the facility positively affect the health of various population sub-groups – including facility patients, staff, and surrounding neighbourhood residents?" For patients (among the most vulnerable) a healthy health facility encourages healing and wellness (e.g., infection control, access to nature, safety features). For facility staff and visitors, the intended effect of facility design is to maintain wellness and facilitate healthy choices (e.g., minimize physical and emotional stress, create active transportation opportunities, promote physical exercise). And

for the local neighbourhood, the intended effect is to minimize the health burden of the facility (traffic, light and noise pollution, etc.) and maximize the benefits (green space, on-site facilities, spin-off neighbourhood services, etc.).

**Question 4:**

**You mentioned earlier that CLASP was a way for VIHA to strengthen its expertise. Could you give more details with regard to the expertise you were or are seeking to develop, and explain how this should allow your organization to change the policies you outlined?**

The expertise that we have been trying to strengthen and build is in community collaboration and in built environment research and projects. We recognize that particularly in HBE work VIHA cannot and should not impose itself as a 'medical model'; rather we are partners with others in the community who are doing this work already. We need to develop these relationships and provide concrete research and suggestions to bring about the changes that we seek for healthier communities.

Here are just a couple of examples to illustrate. At the beginning of the CLASP project the VIHA team brainstormed several project lists. Rather than independently deciding how to proceed, we invited a group of planners and built environment professionals from our region to come together in a roundtable format and tell us what they thought of our ideas, which ones we should pursue, and what additional and alternative ideas they had for ways in which we could help them in their work to create healthier built environments. The feedback that we received contributed to our partial air quality focus.

VIHA staff are regularly asked to provide input on municipal and regional plans and actions. By taking the built environment research and learning gathered through CLASP, we are able to bring forward data and concrete suggestions to local government or other community groups. The planners in these groups have indicated that they are already aware of the need to use HBE practices; what they need from health authorities is evidence-based guidelines and policies.

**Question 5:**

**Could you tell us what, in your view, has been effective and what has not been effective in your CLASP efforts, and why?**

To respond to this we can check in on some of our intended outcomes for CLASP, which we thought we could expect within five years or so as a result of our efforts:

- Relationships built with VIHA's partners;
- Community positively engaged in planning processes;
- Partnerships built with municipal and regional staff engaged in air quality management, including Terms of Reference for collaboration that could be transferable to work with other municipalities;

- Uptake of training and tools, resulting in increased awareness of and commitment to consideration of improved air quality for health outcomes in planning processes.

Our CLASP projects have been effective in allowing us to explore our relationships and roles in community partnerships. In the Healthy Health Facility project and James Bay project we approached neighbourhood associations that we have been involved with in the past few years and asked about the projects/processes we have both been involved with. This allowed us to reflect on what were strengths, what could be better in the future, and what is the broad application/transferability for other VIHA projects.

CLASP also helped VIHA to step up and take a proactive role with interagency partnerships. The Capital Regional District (CRD) mandate was changed such that their staff could no longer orchestrate the multi-agency Air Quality Working Group. CLASP funds provided us with some resources to reconvene this group, and establish a renewed terms of reference, membership, and workplan to set us in a common direction.

Throughout CLASP we have also had increased contact with other partners (municipal planners etc.) and established some newer connections that will help our future work. For example, we consulted with planners at the outset of our CLASP projects and could re-establish contact with this group. We have been working with CRD staff, and we have made additional contacts with municipal and regional staff in relation to air quality work.

One less effective aspect to date would be the connection and knowledge translation between CLASPs. We have not been able to make use of projects or knowledge gained from other CLASP members. Our own projects, being very recently finished, have not yet had much chance to be put into application.

#### **Question 6:**

#### **Were there any surprises (pleasant or not) as a result of your actions?**

At the outset of the CLASP initiative (spring 2010) we asked planners from around the region if they would be interested in meeting with us to discuss HBE work and projects. There was a high response rate to the invitation, and we were pleased about their response and interest. We had previous relationships with some of the planners and municipalities, and we were thrilled at their openness and interest in participating.

Although not a result of our actions, we were surprised by the very clear message that came from the planners that day: They all understood the benefits of HBE and incorporating HBE principles into municipal policy – and did not need more education on it. What they needed was support from health authorities in developing and implementing policy.

In two of our different projects, we reached out to local neighbourhood groups that we had worked with in the recent past. We were relieved that these groups were open to participating in these projects, since the members are volunteers with limited time and in one case had a history of rocky relations with VIHA. We were not so much surprised as appreciative of the openness and candour of their representatives in these projects.

We were hopeful that there would be more opportunities throughout the project for knowledge exchange with the other partners in the CLASP project. As the deliverables are finalized, we look forward to learning more about their findings and sharing ours.

**Question 7:**

**In order to address policy questions and issues, let's zero in on your health facility project specifically. It is very interesting because in public health, there is a tendency to think of some public policies, for example transportation, as being entirely outside of health. And so the saying goes that public health cannot act on determinants of health except by acting intersectorally, i.e. across departments. Your project, however, underlines a different story: health care delivery is manifestly organizing other dimensions of social life than just health services, and public health should therefore look at the health system itself as an often important contributor to many of the built environment features that seem to promote ill health.**

**Could you describe to us the health facility–related policies that you have re-visited in order to make the facility in question more supportive of health?**

In 2010-2011 we took advantage of the construction of a new VIHA hospital building to reflect on the inclusion of HBE practices in health facilities in general. A foundational aspect of this report was reviewing the inclusion of HBE practices in the new VIHA building – the Royal Jubilee Hospital Patient Care Centre (PCC). This new building was designed and built to be a leader in HBEs, being the first health facility of its size to win a LEED gold certificate in Canada and thus providing an excellent case study.

The PCC segment of the report was structured as a qualitative review of participants' opinions on the successes and challenges of introducing HBE elements into a health facility. We interviewed key people who were involved in the project in a wide range of capacities, including the project lead and the parking/transportation demand management (TDM) team from our health authority, the local neighbourhood association which was involved with the process, the architect, city planners, etc.

We found that planners were aware of and able to incorporate HBE into health facilities. The building itself was designed with numerous elements specifically meant to improve the health of patients, staff and visitors, such as single rooms to reduce the spread of infection, sound-absorbing tiles, water features, walking loops, etc. These elements all lay within the direct control of VIHA and the design team, being internal or on-site features.

What our wide range of interviews was able to provide insight on was how those HBE elements which were beyond the direct control of the health authority were included. The most important of these was the addition of a new transit route. This was achieved through a study of ridership patterns and transit routes which led to the conclusion that there was not a convenient route for passengers arriving from a highly populated area of town. Working together with BC Transit, a pilot route was introduced to serve that population. The route is still being monitored for ridership levels; currently it has a medium volume.

Another example of new policies being introduced to support health which was raised in the interviews was the development of the hospital Campus Master Plan. This planning process was embarked upon at the urging of the local neighbourhood association, which wanted to see principles introduced to guide future site planning to ensure concepts like green space and permeability, which benefit both patients and staff but also the local residents.

Vehicle traffic and hospital parking can certainly be a 'hot button' issue because of the associated pollution, noise and nuisance impacts on area residents. VIHA is fortunate to have a TDM Parking Coordinator and staff to navigate through these issues and find long-term solutions. The PCC and the Campus Master Plan were informed by a specific TDM Strategy as part of the Campus Master Plan process. The TDM strategy involved surveying current modes and baseline data, and a commitment to monitor and report on the outcomes of the transportation strategies to the City of Victoria in coming years. In order to address parking, VIHA took a comprehensive look at transportation modes and behaviours. The facility and campus plans include improved facilities for cycling, because this was an opportunity identified by hospital staff in the TDM survey. The new transit route (mentioned earlier), along with major incentives for staff to use transit such as significant transit pass subsidies, were priority actions that came out of the overall TDM strategy. The Campus Master Plan identifies the possible shift towards parking structures rather than large surface lots in the future. The TDM strategy includes disincentives for staff to drive to work, such as increased parking fees, and incentives like park-and-ride programs and shuttles for employees in addition to the transit subsidies. The facility and campus plans emphasize wayfinding, pathways and pedestrian routes on the campus. This increases the priority of and attention to the human scale and pedestrian environment.

What the report highlighted was that in order to make the largest gains in including HBE elements in a health facility, a range of stakeholders must be involved in the planning and creation of the new facility. As many HBE elements lay outside the direct control of the health authority, they must be achieved through partnerships.

On a smaller scale, we have to remind ourselves that healthy facilities are not all about new buildings and big projects. There are lots of operational projects that can be undertaken to make existing facilities healthier: transportation demand management programs, structural refits, community gardens on site, etc.

As the CLASP project deliverables are shared among partners and other practising professionals, we are glad that our report and learning will be read by others. We would be pleased to share what we have learned, as many of the lessons are transferable. We would also be interested and encouraged to hear from other health authorities that have successfully implemented healthy health facility policies within their organizations.

**Question 8:**

**You mention the issue of the size of the hospital itself. Larger health care facilities often – though not always – mean facilities that are located on the fringes of significantly built-up areas. And such locations often make it impractical for patients or staff to get to the hospital by means other than a car. This effect may be magnified if the larger facility is replacing one or a series of smaller hospitals. Was size/localization of this facility an issue – or could it have been? Alternatively, is this or could this be considered a policy issue in VIHA?**

The Royal Jubilee Hospital campus in Victoria (20 acres) was purchased in the 1850s, and facility development on that site dates back to the same period. The urban fabric and neighbourhood setting of the Royal Jubilee Hospital has evolved over the years. As described in response to the previous question, TDM strategies that involve shifting modes from driving to cycling, transit, ridesharing, etc. are being actively pursued and implemented. The success of TDM strategies owes much to the facility's location within the City of Victoria: transit systems and cycling facilities already exist in the city and region.

As the Royal Jubilee campus incrementally adds buildings (according to the layout and design guidelines in the Campus Master Plan) within a limited site area, we have a strong incentive to make the site as efficient as possible. Surface parking is not an efficient use of our limited available space on this campus, so we rely on TDM strategies to discourage on-site parking. And we must design on-site parking as efficiently and sensitively as possible.

Building size was not an issue, although building height caused some concern regarding the shadowing of residential land. Planning on crowded urban sites requires flexibility and in some cases less popular interim solutions must be undertaken to reach a more satisfactory end-point, such as having a parking lot that restricts green space and requires significant night-lighting in order to eventually allow for a more compact parkade.

TDM planning is incorporated into planning for new VIHA facilities. The weight which can be accorded to this aspect varies by circumstance and facility size. In some locations there is no viable option for a more centrally located (and therefore more cycling/pedestrian-friendly) site for a variety of reasons including available land and zoning. Ultimately, TDM planning is one of a number of aspects which must be taken into account when determining the location of new facilities.



### 3 FRASER HEALTH AUTHORITY

#### Question 1:

**How and why did policies informing the built environment become a focus of work for staff in Fraser Health (FH) and how is this work currently organized (links to municipal/regional administration, resources dedicated to this work, position in the organizational structure, senior management support, role of CLASP in the effort)?**

FH's Healthier Community Partnerships initiative was championed by our CEO (Dr. Nigel Murray). The impetus was to figure out how to work with local governments around issues of public health in communities – beyond the scope of health services. Previous activities and relationships between health and community sectors were not sufficiently structured to bring about significant change. The built environment is one strategy in the bundle to promote the “better health” area of our vision.

FH's organizational change to the Healthier Community Partnerships model began before the work around the built environment became a focus area. While the HBE was a priority of the HBE Alliance on a provincial scale, there was little leadership in this area from the Ministry of Health or our own management.

Under the Healthier Community Partnerships Model, the Executive Director, Medical Health Officers and Community Health Specialists work to support communities in our region in their health promotion activities. The Healthy Living Team (which includes expertise in tobacco reduction, healthy eating, food security, physical activity, healthy built environment (HBE) and healthy public policies) works with municipalities and community groups to support vulnerable citizens and neighbourhoods, and to improve community health through healthy living initiatives, with the goal of reducing rates of chronic disease.

One Community Health Specialist (1 FTE – full time equivalent) is leading the HBE portfolio and program development with the support of a manager/supervisor. The Community Health Specialist is able to guide and support Healthy Living strategies that are selected for each community and works closely with an Executive Director who spearheads this work with each municipality. The resourcing and roles of additional staff in HBE work in FH's Health Protection and Mental Health and Addictions departments is also being considered.

When FH was determining priorities for its Healthier Community Partnerships, the work for the CLASP project had already been established. Having this in place helped to facilitate the integration of HBE work into the overarching healthier community partnership priorities. FH's participation in the CLASP has provided a link to emerging practice, research and collaboration with other health and planning authorities across the country. Also, in the HCBP project FH had access to a planning specialist who provided support in the selected projects to work on HBE projects and capacity in two main areas: partnering with municipalities on relevant planning and policy projects, and developing capacity and resources.

## Question 2:

**What policies have you been concentrating on and what are the logics behind the choices that you made? For example, were your choices made on the basis of windows of opportunity, potential population health impacts of those policies, specific needs to improve specific health outcomes, or other considerations?**

The Healthier Community Partnerships applies HBE strategies in three key areas:

1. Official Community Plans (OCPs) (with a secondary focus on neighbourhood plans);
2. Access to parks, recreation and green space, particularly by children; and
3. Education and awareness-raising about HBEs.

The specific action items listed under the overall strategies were determined by a combination of strength of evidence, health authority priorities, and areas that required clarification for municipalities (e.g., they wanted more information about inequities).

The rationale for each of the 3 key areas is as follows:

1. OCPs. It made sense for us to start focusing on OCPs as this is the highest level at which we (the health authority) can influence the policy direction of municipalities in HBE. Higher-level discussions must take place with the provincial government. Looking at the concepts and components of HBE, OCPs came through as a tool or activity that would be influential in meeting our goals of promoting health and reducing chronic disease. The OCP is also one consistent activity across all of our municipalities. It allows us to try to implement techniques and activities that build on existing relationships and test different ways of working with local government. FH has not always had the most consistent and coordinated approach in this area.
2. Access to parks, recreation and green space, with a particular focus on children, is identified as a key issue across FH communities, and strong evidence showed this to be a promising area. Children's health has deteriorated due to obesity and inactivity, and we need to reverse this trend because of poor chronic disease rates.
3. Awareness-raising. To build partnerships with municipalities, we needed to move from a general understanding and agreement about the health of our built environment to effective strategies to bring about change. There is a need for evidence and information to support HBE policies and to reach the broader community with this information and raise their awareness about the importance of not only behaviour choices but of the role that the place where you live plays in your health outcomes.

### Question 3:

**Policies that inform the built environment have been tied in many different ways to social and health inequalities – inequalities not only defined in terms of income or socio-economic status, but also along the lines of ethnicity, gender, mode of transportation (e.g., cyclists or vulnerable road users), etc. How are health inequalities considered in your work?**

Equity is a foundation of much of FH's work and partnerships with communities. It is a key principle of the British Columbia provincial core health programs as well as throughout the development of the Healthier Community Partnerships work. It underlies everything we do!

Equity is a priority in work related to the built environment and municipalities have requested clarification and assistance from us to help incorporate this language into what they do. Also, we have evidence: some groups are exposed to poorer built environments, experience a larger burden of disease, and have fewer opportunities for civic engagement. However, evidence about the effect of built environments on some particular ethnic groups is not as well characterized.

We advocate in community planning processes to develop specific policy objectives and measures to promote inclusion, such as: small-scale neighbourhoods or town centres to facilitate social interaction, inclusion and local identity; and supporting the design of public space to be universally accessible and inclusive. FH has developed a health equity 'tool' to support our work.

Our experience from participating in local neighbourhood planning is that we can raise concerns about inequities that could be exacerbated due to unintended consequences of policy decisions. For example, if a plan locates higher-density housing on a site right next to a high-traffic corridor we may acknowledge the upside of enhanced access to transit options, and point out the downsides of this location, such as residents' exposure to air pollution, risk of traffic-related injury, access to neighbourhood services, and encourage land use planning and design alternatives.

An equity lens is useful in advocating for improving the active transportation infrastructure, including safe routes to school, convenient neighbourhoods that allow seniors to age in place, and neighbourhoods that have minimal barriers for people with disabilities. We lean on a body of evidence that addresses how neighbourhood safety, infrastructure, streetscape, and community design are associated with levels of physical activity and injury. We hope that by giving evidence and support to decision makers they will be encouraged to make investments and policy decisions that result in healthier outcomes.

FH's Community Action Plans are developed in partnership with municipalities. One of the consistent key areas is to target vulnerable citizens and neighbourhoods, e.g. seniors, youth at risk, people with mental disorders or substance use problems. The aim is to support people to be as healthy and as engaged in the community as possible. A HBE (e.g., being able to walk to the store, to meet other people, to access transit) is an important aspect of a healthy lifestyle and managing mental and physical health issues.

**Question 4:**

**You mentioned earlier that CLASP was a way for FH to develop its capacity. Could you give more details with regard to the capacity you were or are seeking to develop, and explain how this should allow your organization to change the policies you outlined?**

FH is pursuing three avenues to develop our capacity, which will enable us as an organization to help municipalities develop policies that encourage healthy communities and healthy people.

First, we are increasing our knowledge of the HBE field, sharing it within FH, and applying it in our communities. We are learning more all the time about evidence that is applicable to the broad range of communities that we serve – urban, suburban, rural and small. As we get a handle on evidence and information that applies to the various types of communities, we can offer relevant information and support for community and regional decision making. We need to be mindful of offering information and input that is based on evidence about health outcomes associated with built environments that closely mimic the contexts within which we are working. This is important for our credibility and effectiveness.

Second, FH is developing the capacity for HBE work within our organization. The CLASP projects that we chose have allowed us to experiment with which departments and which staff need to be involved in municipal planning initiatives and what roles they can play. For example: in 2010 Healthier Community Partnerships, Health Protection, and Medical Health Officers teamed up to analyze land use options that were being considered for a neighbourhood plan. We combined our expertise and knowledge to provide the municipality with a health lens on the various land use options. We are looking at what is a sustainable model within FH for our HBE work across the broad region that we serve.

In 2011 we worked on developing an OCP Workbook, which will help us with both knowledge capacity and organizational capacity. This is a repository for information about ‘knowing’ (evidence and information), as well as tools for ‘doing’ (policy input and community engagement). This will allow FH to share and build information, so that it can be taken up by various staff within the organization and applied across the communities that we serve in order to provide input to their policies.

Third, FH has been developing some successful and strong relationships with our communities through the Healthier Community Partnerships program. We think that these relationships will enable us to continue to become increasingly involved in communities and with key players, and continue to build more trusting and collaborative relationships, and have more policy influence.

**Question 5:**

**In your view, what has been effective in your CLASP efforts and why?**

To reflect on how we have been effective we can look back on our progress towards the outcomes we forecasted back in 2010 when we began the CLASP project. We recognize that our work will have more impact over the long term, and the steps that we take today will be of

benefit in the future. The main objectives of our CLASP efforts were to build internal capacity, and build our capacity to work with municipalities.

In terms of building our internal organizational capacity, we have come a long way in two years and CLASP has been part of motivating our progress. Although we do not have complete certainty about the various roles and responsibilities for HBE work, our pilot work in HBE has given us a clearer understanding about the scope of work and resources that will be involved in serving all of our communities in the HBE initiatives. We have developed a modest foundation of resources pertaining to HBE (library, information sheets, community engagement precedents, etc.) that will help the HBE 'leads' within our organization start involving others as we move forward. We have developed more concrete ideas about what HBE means within our context, and we have a much greater overall literacy and confidence in the issue than when we began CLASP a couple of years ago.

In terms of building our capacity to work with municipalities, we have been continually reaching out and building our relationships with municipal planning staff in a couple of pilot communities. During the CLASP project we increased the scope of our relationship from being mostly about regulatory issues to being about six key areas of the HBE at a policy level. We have also built the depth of our familiarity with staff from engaging in numerous meetings, calls, and email exchanges. We find that when we present our work and interest in HBE to local and regional government audiences there is always a lot of interest in further opportunities to work together. It is rewarding to receive that feedback because it means we are offering valuable support and knowledge.

**Question 6:**

**Conversely, what was not effective, and why?**

Again, we reflect back on our main objectives: to build internal capacity and build our capacity to work with municipalities.

In terms of building our internal organizational capacity, the CLASP project came at a time when we are determining how to best organize our roles and responsibilities for HBE. This is an important and necessary stage in our evolution. Our Healthier Community Partnerships group, Health Protection, and MHOs have been involved in various aspects of this process. Our HBE priorities and organizational commitment of resources may be changing and shifting based on our experience, and learning about what type of capacity and resources are needed for HBE initiatives. In an ideal world, we could have made the most effective use of CLASP resources (e.g., planning assistance) when our HBE programs and resources were solidified.

In terms of building our capacity to work with municipalities, we have been reaching out and building our relationships with municipal planning staff in pilot communities and with the regional districts. In 2011 we formalized partnerships with a couple of pilot communities to work with them on their Official Community Plans. So far our biggest obstacle to participation has been the timelines! It is challenging to plan funding timelines and schedule work in a changeable environment that is dependent on other organizations' workloads and priorities. Due to the municipal election cycle (there were elections in November 2011), the OCP

projects have moved ahead more slowly than the local government staff had planned. Consequently, the OCP projects are still at preliminary stages and we have not been able to take full advantage of the CLASP planning assistance to fully participate and provide input.

Despite these challenges, CLASP has helped us to move forward with building our HBE capacity.

**Question 7:**

**Were you surprised by the effects of some of your actions?**

We have been well received by our municipal partners, and it has been quite informative to engage in planning processes at a local level in our 'pilot' type projects. Planning projects (such as OCPs) can be a significant undertaking, and the process can go on for a long time. A health authority's commitment to participate throughout the process can involve a multi-year commitment. The planning process and timeline are subject to many influences (e.g., elections, political priorities), which makes it challenging to accurately budget and plan for when and how much of the health authority's resources will be required to be meaningfully involved.

Within our own organization, a sustained effort has been required to sort out the roles of various staff and departments in the HBE area of work. There is a genuine interest and commitment to this area of work in our organization, though it is somewhat challenging to nail down our specific direction, coordination and resources.

This is not necessarily a surprise, but we are continually amazed at the growth of resources and evidence regarding the association between the built environment and health. Many guidelines, resources, literature reviews and summaries exist, and the depth and breadth of resources for our practice continues to grow. From our recent experience, it seems that we could collectively benefit from focusing further effort on solidifying common themes and messaging (based on evidence) in order to effect change in the way that communities are built.

**Question 8:**

**Do you see windows of opportunity where your involvement could help bring rapid and significant changes for population health?**

Given that a rapid change to population health status is unlikely, FH is optimistic that it can be involved in helping to shape best practices in order to bring about significant change over a period of time.

Our health authority is currently cultivating partnerships with local governments to raise awareness about population health and offer our input to community planning projects. Perhaps widespread impact could come about as a result of amended legislation that requires local government plans to include health-focused policies, targets, and strategies. A legislated requirement and provincial commitment would certainly raise the bar and would ensure that all communities are considering health in their plans – not just those communities who already see the advantages and involve health voluntarily. If such a change were to

occur, our health authorities would need to devote more resources to support our involvement.

A further opportunity for significant advancement towards population health objectives would be to consistently require health criteria to be considered and accounted for in the decision-making process (such as health impact assessments [HIA]) for planning policies and development projects.

Overall, however, we realize that health involvement in community plans and policies is likely to bring about changes in the medium to long term – not rapid changes.

In terms of policy areas that provide the greatest opportunities for improving population health, FH has developed a set of HBE principles that we reference in our work. The six principles are:

1. Create a range of housing opportunities and choices;
2. Design complete, compact and connected neighbourhoods;
3. Ensure equitable access and opportunity for all;
4. Provide a variety of transportation options;
5. Support healthy eating and food security; and,
6. Limit exposure to environmental hazards.

These principles were developed based on areas of opportunity that we see to effect change, informed by evidence linking built environment and health outcomes.



## 4 PEEL PUBLIC HEALTH

### Question 1:

**How and why did policies informing the built environment become a focus of work for Public Health in the Region of Peel and how is this work currently organized (links to municipal/regional administration, resources dedicated to this work, position in the organizational structure, senior management support, role of CLASP in the effort)?**

In 2005, Peel's State of the Region's Health report focused on unhealthy weights and related health consequences in the adult population. The report highlighted the impact of the built environment on health and emphasized that incorporating physical activity into daily life, through activities such as walking to the grocery store, is integral to maintaining a healthy lifestyle. Council embraced the recommendations in the report and provided several resolutions for Planning and Health to collaborate, including requiring Public Health to comment on development applications, developing planning policies for active living and advocating for provincial policy.

Relationship building was, and continues to be, a key component of the work Peel Public Health (PPH) is doing to advance the healthy built environment (HBE) work. Educating ourselves and our partners is essential to integrating the elements of healthy communities into planning and engineering processes. Opportunities to work with our partners are continuously explored at both the regional level and the local municipality level. Advocacy at the provincial level is also important and is accomplished through the provision of comments on provincial policy documents such as the Ministry of Municipal Affairs and Housing's Provincial Policy Statement and the Ministry of Transportation's Transit Supportive Guidelines.

More recently, the Region of Peel's 2011-2014 Strategic Plan has set out long-term direction for the Region. The *Strategic Plan* includes specific goals and actions that highlight work on health and the built environment as follows:

**Table 1 Excerpt from the Region of Peel's 2011-2014 Strategic Plan**

Goal 3: Maintain and improve the health of Peel's Community.	3.1 Influence community design to promote health.
Goal 4: Support and influence sustainable transportation systems	4.3 Support improved and integrated active transportation, transit and land use systems to effectively move people and goods throughout Peel.

Furthermore, Regional Council developed Term of Council priorities in order to advance the Strategic Plan and help provide a guide for our daily work, operations and commitments. Seven key themes that are highlighted are: environment, social development, community health, transportation, cultural development, public safety, and service excellence. The table below includes key priorities that highlight the work on health and the built environment:

**Table 2 Excerpt from the regional council's priorities on health and the built environment**

Term of Council Priority	Desired Outcome	Indicator	Current or Proposed Target	Actions (2011)	Actions (2012 to 2014)
Increase active transportation	Reduce the proportion of trips using cars, thereby reducing greenhouse gas emissions and improving citizen health	Number of trips by active transportation as proportion of total trips	Increase the active transportation mode share to 7% by 2014 (current mode share: 5%)	Develop Peel's Active Transportation Plan	Implement endorsed plan
Promote a supportive environment for healthy weights	Reduce overweight/obesity, diabetes and cardiovascular disease through increased physical activity and increased consumption of fruits and vegetables	Physical activity levels Incidence of diabetes Incidence of overweight/obesity	Reduce the incidence of diabetes by 10%, or approximately 10-15,000 fewer individuals with diabetes  Reduce by 1,000 in 2011	Conduct literature review to identify key priority areas for action  Complete policy work related to built environment (i.e., identifying opportunities to influence urban and regional planning) and school food and beverage policy  Produce discussion document on policy interventions	Ensure all Peel schools (385 schools) comply with provincial nutrition standards by 2012  Two external organizations will adopt healthier food policies for their programs  Increase the walkability of Peel as a result of two new policy changes adopted into urban and regional planning processes

Council and senior management support have been integral to the success of the built environment work at Peel. Building capacity at the staff level has also been a key priority for Peel. For example, PPH has recently created the position of Health Planning Facilitator. With a planning background, the Health Planning Facilitator's role is to act as a liaison between planning and public health. The Facilitator has been able to highlight the work public health is doing, sharing it with individuals in the organization who may not otherwise be aware of it. This has led to Public Health's involvement in various ongoing studies at both the regional and local municipality levels.

CLASP has provided PPH the opportunity to "get the message out" through partnerships with various individuals and groups. The presence of a national movement working to advance the HBE agenda has also highlighted the importance of this issue at the regional and local municipality levels. As a result of CLASP, the HBE agenda has been concretely identified as

one of PPH's strategic priorities for the next 10 years, as well as a priority for this term of Regional Council.

**Question 2:**

**What policies have you been concentrating on and what are the logics behind the choices that you made? For example, were your choices made on the basis of windows of opportunity, potential population health impacts of those policies, specific needs to improve specific health outcomes, or other considerations?**

Peel's work has focused on the walkability component of community design. A foundational component of this work was the Healthy Development Index, which was created in 2009. The Index is an evidence-based set of standards, targets and ranges that are provided for the basic principles of healthy community design, from a physical activity standpoint. Based on an extensive review of the planning and health literature, PPH collaborated with the Centre for Research on Inner City Health (CRICH) at St. Michael's Hospital to develop the Index. We were interested in knowing what the evidence said in terms of built environment and design practices that are effective at promoting active transportation. The literature review gave us a sense of the strength of evidence, as well as the standards, targets and ranges that are likely to have an impact.

The seven built environment elements that were found to have the strongest evidence were:

1. Density;
2. Service proximity;
3. Land use mix;
4. Street connectivity;
5. Road network & sidewalk characteristics;
6. Parking; and
7. Aesthetics & human scale.

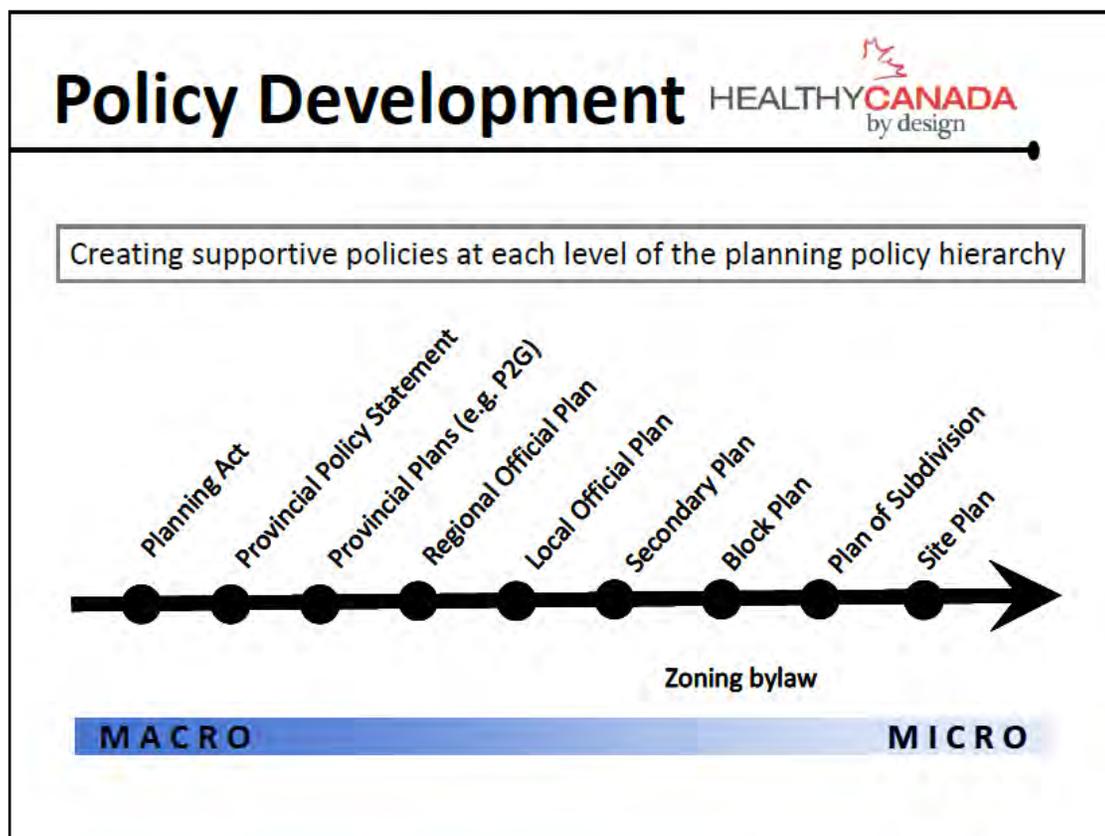
For each of the above, the Peel Healthy Development Index provides:

- a) Background information about the "health importance" of the built environment element, according to the literature;
- b) Insights as to how the built environment element can be measured and calculated (e.g., in terms of which units);
- c) Recommended targets and ranges for the built environment to promote healthy lifestyles based on the evidence, such as, for example,  
the health prerequisite for residential density is 35 dwelling units per net hectare, including residential, mixed-use, and commercial zones but excluding public spaces, streets, other public rights of way, and other land uses other than those specified above, such as industrial (Peel Healthy Development Index, page 49);
- d) Potential barriers to implementation of the recommended targets and ranges and;
- e) Recommended action steps.

It is important to note that the *Index* is not meant to be prescriptive or actually set targets for the Region and its municipalities. Rather, it is meant to be a foundational reference document to allow our public health team to keep in mind the evidence base as we work collaboratively with our Planning experts to integrate health considerations into local planning policy. The Healthy Development Index provides our team with a point of reference from which to start dialogues with local planning experts who are better positioned to know what will work based on specific contexts and other considerations.

Since public health does not approve, design or plan infrastructure projects or community design, PPH's role has been to provide guidance and influence community design in a way that will ensure health is a primary consideration. Developing tools and policies which integrate health into the planning and engineering process has been a key component of Peel's work on HBEs. This and the project's partnership-based approach have resulted in much of the work being reactive or opportunistic in nature. This means that PPH has refrained from setting policy objectives on its own, "in silo." Instead, we have worked with local planners to determine what policy review or development opportunities are taking place in the short and medium terms and how public health can help integrate a health lens into these policy processes.

Building on the evidence from the Index, and through dialogue and collaboration with our planning divisions (regional and local), PPH has been able to integrate the principles of healthy community design into other tools such as design guidelines, health background studies and community improvement plans. Peel's policy work to date has focused on creating and increasing references to health within the Regional and local Official Plan policies. Having a solid policy foundation that highlights the health impacts of the built environment within the planning and transportation policy framework is necessary to implement any tools and processes that aim to improve the health-promoting potential of new and existing developments. Figure 1 illustrates the level of policies PPH has been working at, with the purpose of creating an overarching policy environment that supports the approval and development of health-promoting built environments.



**Figure 1 Scales of urban planning policy on which PPH intervened**

Table 3 and 4 provide examples of policy input provided by PPH during the course of our CLASP project:

**Table 3 Region of Peel Official Plan Amendments**

Document	Policy #	Intent
Amendment 24 <i>Current Status (March 2012) Amendment appealed to Ontario Municipal Board (OMB)</i>	7.9.2.9	The Region will prepare an assessment tool to evaluate the public health impacts of development, jointly with the area municipalities
	7.9.2.10	The Region will work jointly with the area municipalities to raise public awareness of the health impacts related to planning through public and private partnerships
Amendment 25	7.3.6.2.2	The Region may require health impact studies as part of a complete development application to amend the Regional Official Plan
	7.9.2.3	The Region may develop public health indicators to analyze the effectiveness of Official Plan policies and to serve as a basis for policy adjustments
	19.3.7	The Region requires all development applications to have regard for public health

**Table 4 Local Municipality Official Plan Amendments**

Document	Policy #	Intent
Caledon Official Plan Amendment 226 <i>Current Status (March 2012) Amendment appealed to OMB</i>	4.1.10.3.2	The Town will participate jointly with the Region of Peel and area municipalities in the preparation of an assessment tool for evaluating the public health impacts of development proposals
	4.1.10.3.3	The Town will work jointly with the Region of Peel and area municipalities to raise awareness of public health issues related to planning
Mississauga draft Official Plan <i>Current Status (March 2012) Amendment appealed to OMB</i>	19.3.5	The City may require health impact studies as part of a complete development application
	19.3.7	The City requires all development applications to have regard for public health.

**Question 3:**

**With regard to your CLASP project specifically, could you expand on your policy objectives (both for planning and engineering processes) and substantive goals (walkability, active living) and on the logic of your actions? In other words, could you outline in greater detail how the activities you lead are connected to the outcomes you are seeking in terms of policy changes and health outcomes?**

Our goal with the CLASP project was to create tools which would influence planning and engineering processes. Using the Healthy Development Index, Peel had in place a strong evidence-based review of the relationships between health and the built environment. The Healthy Development Index, however, was not an easily usable tool for planners and engineers because the Index did not consider the various stages of the planning process and some of the elements in the Index could not be evaluated until a development was completed. The next necessary step was to work with practitioners to make the tool more applicable to day-to-day planning work, on the ground. To this end, the focus of our CLASP project was on:

1. Implementation of the Healthy Development Index using tools similar to those already used in the planning and engineering processes.
2. Testing the Healthy Development Index to identify next steps and barriers to implementation, and refine it accordingly (known hereafter as the Healthy Development Index Refinement Study).
3. Developing a framework for integrating health considerations into land use planning and development decisions (Health Background Study: Development of a Health Background Study Framework, known hereafter as the Health Background Studies Framework).

We expect that the above tools will facilitate alignment of planning policy at various levels (Regional Official Plan, Local Official Plan, Secondary Plan, Block Plan and Site Plan) to health objectives. Below, we provide more details on these project components:

### **Healthy Development Index Refinement Study**

While the Healthy Development Index was originally completed with the intention of providing tangible targets and ranges to aim for during the development process, it did have some limitations. While the Index was born out of comprehensive research on the relationships between health and the built environment, our stakeholders felt that this tool could not be easily applied to the planning context. The refinement study tested the Healthy Development Index through the evaluation of both traditional and new (new urbanism) developments/subdivisions to determine the barriers to implementing the Healthy Development Index and provide recommendation for future steps. This was an important step moving forward because the study helped determine where the Index was aspirational in nature for the Peel context and which barriers could be overcome more readily to create effective change now. The study also provided guidance for implementation. By identifying barriers and implementation opportunities for the Healthy Development Index, PPH is now able to use the recommendations to support future work and policy development.

### **Health Background Study: Development of a Health Background Study Framework**

The Health Background Study: Development of a Health Background Study Framework (known hereafter as the Health Background Studies Framework) idea came to us from a local municipality planner. Planners in Peel can request various types of background studies as part of a planning application. These background studies typically include analysis of servicing (water/wastewater), transportation impacts, environmental impacts, and more. Health, however, has not been a “stand out” issue to be analyzed on its own but has been incorporated as part of other reports such as planning justification reports. Public health saw this as a gap in the planning analysis and through the development of the Health Background Studies Framework, PPH provided planners a framework in which health can be evaluated. In other words, the Health Background Studies Framework provides a basis for evaluating health outcomes of a particular development using a tool which planners are both familiar with and comfortable using – the background study.

We are now at the stage where we can begin to work with local municipalities in implementing the framework. The Region of Peel has three municipalities – the Cities of Mississauga and Brampton and the Town of Caledon. The cities are urban while the town is generally rural in nature. The City of Mississauga is generally built out with infill opportunities whereas the City of Brampton has greenfield development opportunities. Since all three municipalities are different in nature and will face different challenges in implementing the framework, we are working with each municipality individually to customize an implementation plan for each one’s individual and unique needs.

All of the tools developed by PPH under the CLASP initiative can be found at: [www.healthypeelbydesign.ca](http://www.healthypeelbydesign.ca).

**Question 4:**

**Policies that inform the built environment have been tied in many different ways to social and health inequalities – inequalities not only defined in terms of income or socio-economic status, but also along the lines of ethnicity, gender, mode of transportation (e.g., vulnerable road users), etc. How are health inequalities considered in your work?**

The design of HBEs has the potential to impact health outcomes at the population level, thereby increasing the health status of all of its individual members equally. This inherently addresses health inequalities such that no vulnerable group is excluded from the health benefits of supportive built environments. ‘Supportive’ environments ideally create a backdrop for individual choice that supports and encourages positive health behaviours by making the healthy choice synonymous with the easy choice.

Health inequalities are also addressed through certain specific aspects of healthy neighbourhood design. Ideally, a ‘healthy’ design should include a mix of housing types that brings together individuals and families of different socio-economic statuses. This can help to address social isolation by promoting a stronger sense of community within a diverse population. In addition, mixed land use and increased service proximity can make it easier for those without access to a car to obtain access to essential services. In Peel, somewhat uniquely compared with other jurisdictions, the evidence has shown no significant income gradient with regard to health outcomes. Therefore, we know there are other factors that contribute to existing health disparities. Ethnic disparities may be of particular relevance here, for example: South Asians as an ethnic group have a stronger predisposition towards chronic diseases such as diabetes. Given Peel’s prominent South Asian population, the creation of more walkable environments throughout Peel facilitates engagement in positive health behaviours (physical activity) that can mitigate these predispositions.

**Question 5:**

**Could you tell us what, in your view, has been effective in your CLASP efforts, and why it has been? And what has not been so effective, and why? Were you surprised by the consequences, positive or negative, of your actions?**

The CLASP initiative has offered great opportunities for developing relationships with other professionals (e.g., planners, engineers) in the built environment sector. The knowledge translation activities and national recognition that accompanied involvement with CLASP increased understanding that this issue is not limited to the Region of Peel, and in fact extends across North America. CLASP work was also a catalyst for our partners at the local level seeking opportunities to collaborate with us.

Through the extensive knowledge sharing requirements of CLASP, other built environment professionals have become increasingly aware of our work and the goals we are trying to achieve. This has enabled PPH to get involved in several projects beyond CLASP, projects that will no doubt help to further the HBE agenda. Improving relationships with key partners was a desired effect of our CLASP project and PPH has been pleased with the results.

Based on the nature of public health governance and structure in each province (Public Health Units in Ontario are decentralized whereas public health in other provinces is centralized), our CLASP project needed to have distinct and customized components at each node. While this allows for a greater array of examples and best practices available to the public at the end of our CLASP period, it made it difficult to collaborate with other nodes during the CLASP grant. As a result, we were not able to leverage the strengths of each of our Healthy Canada by Design partners as much as we would have liked to.

**Question 6:**

**Could you give a few examples to illustrate the opportunities to collaborate with other professionals that have arisen and the other projects beyond CLASP that you have taken up as a result of your involvement with CLASP?**

As a result of the CLASP initiative, PPH, in partnership with Regional Planning, is building stronger relationships with local area municipalities. This has led to Peel Health's involvement in various projects such as the development of Sustainable Design Guidelines for the City of Brampton as well as participation in the Community Improvement Plan Study for Caledon East in the Town of Caledon. Also, Peel's Health Background Studies Framework is now referenced in some Traffic Assessment Studies in the Region. Furthermore, PPH has been working closely with the Planning and Transportation divisions at the Region of Peel. We have become involved with several ongoing projects such as the Regional Roads Characterization Study and the Goods Movement Strategic Network Study, two studies that look to improve transportation networks in Peel. Public health's involvement in these studies will help to bring focus to the health issues related to transportation. In addition, PPH staff are also working with Integrated Planning in their development of Green Development Standards. The Healthy Development Index will serve as a key reference document in the development of these standards.

In addition to specific projects we have undertaken beyond CLASP, the knowledge transfer efforts implemented as a requirement of CLASP have led to Peel staff being invited to present on Peel's achievements and lessons learned at various organizations across the country, within both the planning and public health sectors. Opportunities to share Peel's experiences and best practices with other jurisdictions in Canada are extremely valuable to the HBE agenda as a whole, since they increase efforts to promote health and prevent disease across Canada.



## 5 TORONTO PUBLIC HEALTH

### Question 1:

**How and why did policies informing the built environment become a focus of work for Public Health in the City of Toronto and how is this work currently organized (links to municipal/regional administration, resources dedicated to this work, position in the organizational structure, senior management support, role of CLASP in the effort)?**

Toronto Public Health (TPH) has had a long-standing and productive relationship with municipal officials in Toronto involved in the built environment. In the past, TPH staff were directly involved in the development review process to comment on development applications regarding site contamination and air quality issues. TPH staff continue to review demolition permits where there may be a risk to health. TPH staff have also investigated community complaints and councillor inquiries regarding development proposals where there is a potential health risk.

TPH staff were actively involved in the development of the City's Toronto Green Standards, a collaborative process led by City Planning that involved many city divisions and which culminated in regulations approved by City Council. TPH's research and policy work on air quality, climate change and other health concerns influenced Toronto Green Standards, which addressed these and other issues. These standards enabled the City to ensure that new developments meet mandatory requirements and are encouraged to incorporate additional voluntary measures to ensure that new developments protect the environment and human health to a much greater degree than previously.

More recently, given the updated Ontario Public Health Standards (OPHS) that came into effect in 2008, TPH has revisited its work on the built environment. The OPHS outline explicit requirements for Ontario health units to address threats to health associated with the built environment and health, air pollution, climate change, chronic disease and injury prevention (e.g., obesity, physical inactivity, and nutritious food), and other major health issues. Becoming part of the CLASP initiative on the built environment has enabled TPH to become more focused as well as more comprehensive in its activities in this area.

TPH's built environment and health policy work is concentrated in the Healthy Public Policy Directorate. However, some related policy work, such as work on injury prevention and obesity, is led through the Chronic Disease and Injury Prevention Directorate. TPH is part of City government and it reports to the Board of Health regarding approval for its policies and resource allocation. The Board of Health is very supportive of TPH's initiatives on the built environment. The Medical Officer of Health is strongly supportive of policy and program efforts to improve the quality of the built environment with a focus on addressing health inequities. Through TPH's recent Healthy Toronto by Design Initiative<sup>5</sup>, we are developing a broader engagement strategy to have greater influence on policies and actions in other Toronto municipal government organizations known as the ABCDs (Agencies, Boards, Commissions, and Divisions).

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<sup>5</sup> See: [http://www.toronto.ca/health/hphe/environmental\\_health/environmental.htm](http://www.toronto.ca/health/hphe/environmental_health/environmental.htm).

Participation in the CLASP initiative has catalyzed considerably more activity on the built environment and health than would have been the case otherwise. Overall, TPH allocates about 2 FTEs (full time equivalents) to this policy area. However, the additional resources provided through CLASP stimulated much more activity and enabled TPH to leverage more initiatives.

**Question 2:**

**What policies have you been concentrating on and what are the logics behind the choices that you made? For example, were your choices made on the basis of windows of opportunity, potential population health impacts of those policies, specific needs to improve specific health outcomes, or other considerations?**

TPH is focusing its policy work on the following:

1. Addressing food deserts through food mapping, community engagement and exploration of revisions to the Official Plan;
2. Influencing the Parks Plan through the current review process to support continued and enhanced acquisition and maintenance of green space, with a special focus on meeting the needs of low-income populations in areas of the city with reduced park density and access;
3. Examining site specific zoning in residential apartment tower clusters and how to address barriers to greater mixed use, including facilitating increased food and other commercial retail in the vicinity;
4. Catalyzing enhancements to pedestrian and cycling infrastructure through a collaborative study on the health benefits of walking and cycling, and policy options to enable improvements (working with other City divisions under Transportation Services and external partners including the Ontario Medical Association, Heart and Stroke Foundation of Ontario and YMCA to help inform our work);
5. Hosting a roundtable on health and planning considerations related to the Official Plan currently under review. At issue are health equity considerations as well as how to enable stable neighbourhoods with significant chronic disease (such as diabetes) but little new development to mature into more walkable, mixed use communities;
6. Exploring the use of computer-based health impact assessment (HIA) decision support tools (developed by Larry Frank et al.) by City staff to determine and visualize health impacts associated with diverse development scenarios or land use and transportation policy options; and
7. Examining residential preferences for more walkable versus auto-centred neighbourhoods and how this information can influence builders, policy advisors and decision makers in accelerating the provision of healthier built environments.

The initiatives we undertake are based on a variety of factors. Most important is the evidence of the significant burden of illness in Toronto and elsewhere associated with the built environment. This has resulted in a strong focus on policy opportunities for increasing walkability and physical activity through structural improvements in the environment. Our

policy work is also guided by opportunities that have emerged such as the CLASP partnership, CLASP funding, and an opportunity to influence some major city-wide policy instruments under review such as the Official Plan and the Parks Plan.

**Question 3a:**

**You previously mentioned health inequities. The only group that you reference explicitly in this regard is low-income populations. Since one can imagine many different criteria mobilized to define a group that is enduring health inequities (age, race/ethnicity, mode of transportation, socio-economic status, gender, etc.), are there any criteria other than income that you use in your work on inequities? And why have you chosen to work on this or these specific groupings? How does it shape your interventions?**

In Toronto Public Health's Strategic Plan 2010-2014 two of our five foundational principles are focused on diversity and equity.<sup>6</sup> In terms of diversity, we recognize and embrace diversity in all of its dimensions and see it as an asset that we promote respect in all that we do. In relation to health equity, TPH strives to reduce health inequities that exist as a result of the unfair distribution of income, goods and services, and opportunity. We pursue health inequities by working with others to identify and respond to health needs of priority populations, and by advocating for policies that address the social determinants of health (SDOH). Within the Ontario Public Health Standards that all health units follow, the SDOH include the following: income and social status; social support networks; education and literacy; employment/working conditions; social and physical environments; personal health practices and coping skills; healthy child development; biology and genetic endowment; health services; gender; culture; and language.<sup>7</sup>

A focus on all of these dimensions is further enhanced by the fact that our Board of Health (BOH) also has a Health Inequities subcommittee that is part of its structure and which provides recommendations back to the BOH on related issues. Building a workforce at all levels within TPH that is able to embed SDOH and address social inequities in their work has been identified as a key priority as outlined in current strategic workforce planning under development. Our Healthy Public Policy (HPP) directorate has created several tools that help reinforce our focus on health inequities and SDOH in work throughout TPH. These tools include frameworks and tools on HIA, the precautionary principle, and a policy prioritization framework for analyzing policy options.<sup>8</sup>

Within our HPP directorate at TPH we deal with the complete range of social and environmental determinants of health. Within our built environment work broadly and the CLASP project deliverables to date we have focused on this broad range of determinants. We have begun some initial work utilizing the software tool that is under development as part of the CLASP initiative. To date we have focused on LICO (low-income cut-off) dimensions for some initial geographic information system (GIS) maps related to walkability and park

<sup>6</sup> See: [http://www.toronto.ca/health/strategicplan/pdf/tph\\_strategic\\_plan\\_2010\\_2014.pdf](http://www.toronto.ca/health/strategicplan/pdf/tph_strategic_plan_2010_2014.pdf).

<sup>7</sup> See: [http://www.health.gov.on.ca/english/providers/program/pubhealth/oph\\_standards/ophs/progstds/pdfs/ophs\\_2008.pdf](http://www.health.gov.on.ca/english/providers/program/pubhealth/oph_standards/ophs/progstds/pdfs/ophs_2008.pdf).

<sup>8</sup> See: <http://www.toronto.ca/health/hphe>.

density. This is merely an initial step until the tool is fully developed and we can expand its use for other dimensions of equity and determinants of health.

Other current and recent work within our HPP directorate reflects our focus on all dimensions of equity and health inequities. We have created reports such as *The Unequal City*<sup>9</sup> focused on income and associated health inequities. This is the first of several reports that will examine inequalities in access to the determinants of health and health outcomes. Work is under way in relation to reports on transportation and health and race and health. Both reports will include dimensions related to the built environment. We are also at work on reports on active transportation and health and built environment, children's health and built environment and affordable transit options for low income populations. We have also worked on reports and issues related to children's health and environmental exposures, NPRI (National Pollutant Release Inventory) reporting and low income/racialized communities, and heat extremes and at-risk populations.<sup>10</sup>

**Question 3b:**

**Could you name the 'priority populations' and 'at risk populations' that you evoked in question 3a? Could you also say which of these were prioritized.**

The Ontario Public Health Standards (OPHS) direct Public Health Units to identify "priority populations" by epidemiological analysis, surveillance data or other research, including community and stakeholder consultations. In response to these data, public health practitioners can choose to either address them via population-level interventions to increase accessibility for certain sub-groups or develop specific strategies in order to address inequities in the social determinants of health. This approach challenges public health units to balance resource allocation between universal and priority population-focused interventions to increase impact and affect overall population health outcomes. The priority populations and/or at risk groups are defined in relation to the issue at hand or underlying social determinant(s) being examined. For example our 2008 *Unequal City* report highlights priority groups such as low income households, newcomers/immigrants and racialized groups/visible minorities.<sup>11</sup>

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<sup>9</sup> See: [http://www.toronto.ca/health/map/pdf/unequalcity\\_20081016.pdf](http://www.toronto.ca/health/map/pdf/unequalcity_20081016.pdf).

<sup>10</sup> See: <http://www.toronto.ca/health/hphe>.

<sup>11</sup> See: [http://www.toronto.ca/health/map/pdf/unequalcity\\_20081016.pdf](http://www.toronto.ca/health/map/pdf/unequalcity_20081016.pdf).

**Question 4:**

**TPH is part of the City of Toronto administration. Since the amalgamation, the City includes built environments that present even more contrasting diversity in terms of existing transportation modal share, land density, connectivity and mix of use, to name but a few. These characteristics have important implications for both how it is possible to organize and change the urban systems and what the preferences of the residents might be in terms of transportation infrastructure and land use characteristics. How do you work with these tensions and the differences between sectors of the city and the groups that inhabit them?**

The realities of the post-amalgamation City of Toronto present a number of new issues related to the built environment. Outlined below are some examples of work that illustrate how we are approaching these issues. These examples show how we are working in partnership with our colleagues across the City and with external partners to provide the health and equity lenses to issues that impact on health.

Early during the CLASP project we provided comments as part of the review process of the Provincial Policy Statement<sup>12</sup> that sets out the Province's land use planning framework that cascades and frames municipal planning issues. We provided comments directly as TPH and also with partners via the Ontario Public Health Association (OPHA) Built Environment Working Group to help influence policy framing that shapes the development of Official Plans. We are also currently working on providing comments on the Toronto Official Plan<sup>13</sup> to our planning colleagues as part of their five-year regular review cycle. Our feedback will highlight some of the health and equity issues related to the Official Plan and some of our feedback will focus on the issues of growth and stable neighbourhoods in the city as well as issues around employment lands, including issues of density, mix and connectivity. We are also writing a report on zoning barriers to creating complete communities, in conjunction with the United Way of Greater Toronto. This work will result in a series of reports that address some of the zoning issues that prevent the ideal mix of services (i.e., food retail, day care, personal services and community agencies) in tower neighbourhoods that are located predominantly in outer suburban areas. By addressing some of these issues we hope the City will foster the development of mixed elements in these neighbourhoods in order to help create complete communities in all parts of the city.

We are also working on a number of specific projects related to walkability, active transportation and transit and the relationships between them. As part of this work we have been developing a number of GIS mapping products, using the CLASP project software, which will help us illustrate and map some of these tensions that exist throughout the city related to active transportation, transit and parks. For example, we have created a walkability surface map of the City of Toronto and have also done a version that overlays a LICO index. This mapping work will be incorporated in reports going to the Board of Health on the Toronto specific findings of the CLASP Residential Preferences Survey as well as a report on active transportation. We also included a map of park density in our feedback on the Parks Plan to help prioritize neighbourhoods to be considered for future park developments to

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<sup>12</sup> See: <http://www.mah.gov.on.ca/Page215.aspx>.

<sup>13</sup> See: <http://www.toronto.ca/opreview/>.

increase walkability and green space in parts of the city that are disadvantaged in this regard. In addition, we are working on a transit and health report that is focused on equity issues around access and affordability of transit throughout the city. Through this work we intend to inform and support other divisions in their work to help improve health outcomes in the City of Toronto.

**Question 5:**

**In your view, what has been effective in your CLASP efforts and why?**

In our view there have been many effective outcomes resulting from our CLASP efforts, related both to the CLASP-specific project deliverables themselves and a number of new projects within our team at TPH that have been catalyzed as a result of this project. For example, one of the CLASP projects, the Residential Preferences Survey/Walkable City, was presented to our Board of Health in early April. As a result of this survey in the Greater Toronto Area (GTA) (and in the Greater Vancouver Regional District) we have worked with our colleagues in Planning and Transportation Services to create some Toronto-specific recommendations. The other large deliverable, the software tool, has generated some interest in colleagues across the city and externally for potential applications. We have also been working on a number of other related projects such as an active transportation and health report that has been accelerated in part because of this project. Another initiative is a collaboration with Planning to co-host a roundtable entitled “Planning a Healthier Toronto” to help provide health comments on the Toronto Official Plan that is occurring as part of the five-year review process. Overall CLASP has created new opportunities to work with internal and external partners and will produce a number of knowledge products and tools that we will be able to share and utilize going forward.

**Question 6:**

**Do you have anything to add? For instance, have you learned any other lessons from the CLASP initiative or from your work on the built environment more generally?**

In terms of lessons learned from CLASP, we have found that not all of the tools work in all settings. For example, the Health Background Studies piece created by Peel appears to work really well for them, but did not work well in the Toronto Planning context. Our City colleagues did not find it of interest and rightfully felt that most of the facets of this tool were already covered by planning mechanisms in Toronto. But we have found that different city partners have a potential interest in the software tool. For example, Planning would like to see how it can possibly connect with their Sustainability Planning Framework and Transportation Services would like to see if it would be helpful in prioritizing work and reconstruction that occurs throughout the city. Having the mandate from a policy and funding perspective (i.e., that built environment is built into the Ontario Public Health Standard) has been helpful in creating a context for doing this work with the city. We create our workplans and budgets based on the OPHS and being given the mandatory direction to conduct work in this area helps build the capacity politically for this work.

## 6 DIRECTION DE SANTÉ PUBLIQUE DE MONTRÉAL

### Question 1:

#### **How and why did policies informing the built environment become a focus of work for the Montréal-Centre DSP?**

The Direction de santé publique (DSP) de Montréal (Montréal's public health department) began to be active in the area of public policy tied to the built environment in 1996-1997. This period saw the emergence of the Regroupement montréalais pour la qualité de l'air (RMQA) (Montréal coalition for air quality), which was formed in the wake of work on a plan to combat photochemical smog (an Environment Canada initiative) and brought together decision makers from various backgrounds under the leadership of a Montréal municipal councillor (Mr. Scott McKay). The RMQA included, among others, representatives from the Ministère du Développement durable (ministry of sustainable development), the Ministère de l'Environnement et des Parcs (MDDEP) (ministry of environment and parks) (then called the Ministère de l'Environnement et de la Faune – ministry of environment and wildlife), the Ministère des Transports du Québec (MTQ) (the Québec ministry of transport), the Communauté urbaine de Montréal (CUM) (the Montréal urban community, an agglomeration of urban municipalities), the Société de transport de Montréal (STM) (Montréal's transit authority), Équiterre, Greenpeace, Transport 2000 and the directeur de santé publique - (medical health officer), Dr. Louis Drouin.

In 1998, the DSP representative took over as chair of the RMQA. The collective work of its members led to the publication of a pioneering work, *Pollution atmosphérique et impact sur la santé et l'environnement dans la grande région de Montréal*<sup>14</sup> (Atmospheric pollution and health and environmental impacts in the greater Montréal region). This document presented regional, provincial and federal data on emission sources and air-quality indices for the metropolitan region. Transportation was clearly identified in the text as the main source of air pollution. The integration of transportation and land use planning was already listed among the effective strategies for improving the situation. In parallel, a conference was organized on the topic of air pollution, transportation, planning and public health. Ultimately, the RMQA ceased operations, but the role it played has been assumed by the liaison committee for the Montréal Community Sustainable Development Plan, piloted at the municipal level by the Executive Committee member responsible for the environment.

Soon after 2000, the DSP de Montréal identified transportation and health as a priority. In collaboration with the Institut national de santé publique du Québec (INSPQ) (Québec's public health institute), a research program was undertaken that focused on the health impacts of air pollution generated by transportation. Other health issues linked to transportation then became the subject of research: injuries, problems associated with a sedentary lifestyle, and noise-related problems.

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<sup>14</sup> A summary report of this document is available at the following web address: <http://collections.banq.qc.ca/ark:/52327/bs30970> (in French only).

It was during this period that environmental health opened up to a new paradigm (the built environment) and an extensive field of study and intervention began to be developed. When, in 2005, the DSP de Montréal underwent reorganization, a new unit, Environnement urbain et santé (EUS) (urban environment and health sector), was formally created with the person in charge reporting directly to the regional director of public health. This unit went on to pursue more intensively the work begun in previous years and one of its first accomplishments as a team was the production of the director's 2006 annual report, *Le transport urbain, une question de santé*<sup>15</sup> (Urban transport, a question of health).

The EUS unit has primary responsibility for one of the six orientations of the Plan régional de santé publique 2011-2015 (regional public health plan 2011-2015), one focus of which is the planning of a city and neighbourhoods that are safe and that promote a physically active lifestyle. The team today includes some fifteen professionals from various disciplinary fields, including epidemiology, urban planning, geography, kinesiology, toxicology, community medicine and sociology.

### **Question 2:**

**How is the work organized (link to municipal/regional administration, resources dedicated to this work, position in the organizational structure, senior management support, role of CLASP in this effort)?**

The work of the EUS unit of the DSP is structured according to four areas of activity:

1. Acquiring strong scientific and practice-based evidence.
2. Influencing healthy public policies.
3. Supporting partners from the community.
4. Evaluating the effectiveness of strategies, public policies and programs.

Further information about these areas of activity is provided below:

- 1. Acquiring strong scientific and practice-based evidence.** For example, a map of road injuries occurring in Montréal (1999-2009) has been produced. Various indicators have begun to be documented for integration in an Observatoire sur l'environnement urbain et santé (urban environment and health observatory) which is under development. A research program is also underway whose aim is to evaluate the impact of environmental determinants on the number of road injuries among pedestrians and cyclists as well as on active transportation.
- 2. Influencing healthy public policies.** This is done mainly by disseminating information and addressing stakeholders, in particular through the presentation of white papers and participation in periodic meetings with administrators from the Ville de Montréal or the Communauté métropolitaine de Montréal (Montréal metropolitan community). For example, the DSP produced the 2006 annual report of the Director of Public Health, which focused on the various health impacts of urban transportation and suggested courses of action. Public health reports concerning major roadway or real estate projects were presented (Notre-Dame St., the Turcot interchange, the Olivier-Charbonneau bridge

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<sup>15</sup> See: [http://publications.santemontreal.qc.ca/uploads/tx\\_asssmpublications/2-89494-491-8.pdf](http://publications.santemontreal.qc.ca/uploads/tx_asssmpublications/2-89494-491-8.pdf) (in French only).

[formally known as the toll bridge on highway 25], the Bonaventure highway, the Université de Montréal campus at the Outremont railyards, Griffintown, etc.) as well as reports concerning policies (Bill 42, Pedestrian Charter, Transportation Plan, etc.). The DSP continues to lobby the MTQ to contribute more funding and assign greater importance to public transportation and to reduce automobile traffic.

- 3. Supporting partners from the community.** Technical and financial assistance has been given to various community organizations, including to Vélo Québec for its “On the move to school” program and to the Conseil régional de l’environnement (regional council of the environment), in particular, to assist with building consensus in the area of traffic calming and organizing training and carrying out knowledge-sharing activities focused on best practices in urban planning and transportation among relevant elected officials and professionals, in collaboration with experts.

In addition, in conjunction with the Ville de Montréal, the DSP has established the Quartiers 21 program.<sup>16</sup> The latter is aligned with the DSP’s orientation toward development of a healthy urban environment, as well as with the aims of the Local Agenda 21<sup>17</sup> and the orientations of the Montréal Community Sustainable Development Plan.<sup>18</sup> The program provides subsidies on a triennial basis (\$130,000) for projects that put into practice the principles of sustainable development at the community level, for the creation of neighbourhoods that are green and active and, among other things, for the creation of environments that promote active transportation. These projects are aimed at raising awareness and increasing participation among citizens in the area of environmental, social and economic concerns and encouraging cooperation among all local actors: institutional, community-based and private. The channels that facilitate this cooperation vary from one project to another. The Quartiers 21 projects are carried out by various sponsoring organizations with the technical or financial support of the boroughs and the Centres de santé et de services sociaux (CSSS) (Health and social services centres) situated where the projects are implemented.<sup>19</sup> A selection process determines which projects will be supported. The DSP invests \$350,000 per year in these community projects and the city invests \$170,000.

The DSP has taken further action in this area. Through the CLASP funding, we have developed made-to-measure tools for citizen groups, such as an audit instrument for estimating the walkability of streets and an atlas that provides an inventory of 180 community-driven projects in Montréal aimed at creating green, active neighbourhoods. The aim is to equip non-government organizations (NGOs) and citizens’ groups with more sophisticated tools, thus allowing them to more effectively influence policy tied to the built environment. Moreover, the walkability audit tool produced within the context of the CLASP project goes beyond traditional measurements of walkability

<sup>16</sup> See: [http://ville.montreal.qc.ca/portal/page?\\_pageid=7137,88561575&\\_dad=portal&\\_schema=PORTAL](http://ville.montreal.qc.ca/portal/page?_pageid=7137,88561575&_dad=portal&_schema=PORTAL) (in French only). For English information regarding Quartier 21 projects, see: [http://ville.montreal.qc.ca/portal/page?\\_pageid=7137,88561575&\\_dad=portal&\\_schema=PORTAL](http://ville.montreal.qc.ca/portal/page?_pageid=7137,88561575&_dad=portal&_schema=PORTAL).

<sup>17</sup> See: [http://www.a21l.qc.ca/9569\\_fr.html](http://www.a21l.qc.ca/9569_fr.html) (in French only).

<sup>18</sup> See: [http://ville.montreal.qc.ca/portal/page?\\_pageid=7137,88561575&\\_dad=portal&\\_schema=PORTAL](http://ville.montreal.qc.ca/portal/page?_pageid=7137,88561575&_dad=portal&_schema=PORTAL) (in French only). For English information regarding Quartier 21 projects, see: [http://ville.montreal.qc.ca/portal/page?\\_pageid=7137,88561575&\\_dad=portal&\\_schema=PORTAL](http://ville.montreal.qc.ca/portal/page?_pageid=7137,88561575&_dad=portal&_schema=PORTAL).

<sup>19</sup> See: [http://www.a21l.qc.ca/17526\\_fr.html](http://www.a21l.qc.ca/17526_fr.html) (in French only).

such as land use mix, density, connectivity and retail setbacks, to include measurements registered on a much smaller scale—that are nonetheless equally important—such as visual attractions and planning features that increase feelings of safety. This will allow neighbourhood groups to identify a broader, more detailed range of elements belonging to the built environment that can be improved in the short and medium terms, while we work on improving land use planning and public transportation on a much larger scale—changes that require much longer to implement.

**4. Evaluating the effectiveness of strategies.** The DSP has established collaborations with local university researchers to evaluate interventions aimed at improving built environments. For example, an assessment of the health impact of the Bixi program, the self-service bicycle system launched in Montréal in 2009, is now being carried out in collaboration with the Université de Montréal. In addition, the CLASP project has allowed us to initiate, with the Université de Montréal, evaluation of the Quartier 21 program supporting community mobilization funded by the DSP and the city (see point 3 above). The resulting case studies will provide us with information about which actions and policies have the most potential to amplify the impact of community projects. Recognizing that built environments are constructed and transformed by urban planners, engineers, and other municipal workers, most research and tool development to date has focused on how to mobilize these professionals to create environments that promote active travel and sustainable development. In comparison, much less work has focused on the role played by community groups and civil society who can effectively encourage policy makers and elected officials to approve and financially support changes to the built environment enacted by urban planners and engineers. This CLASP evaluation project will help fill these knowledge gaps.

For all of the above activities, the DSP works with many actors from different sectors and with varying levels of political influence. By establishing alliances with community groups, researchers and NGOs, we increase the influence of the health sector at forums for policy discussion and vice versa. In general, the diversity and number of actors with whom we work reflect the multitude of groups and political levels where there is an interest in urban planning and the development of transportation infrastructure. Several levers of influence are thus brought to bear simultaneously.

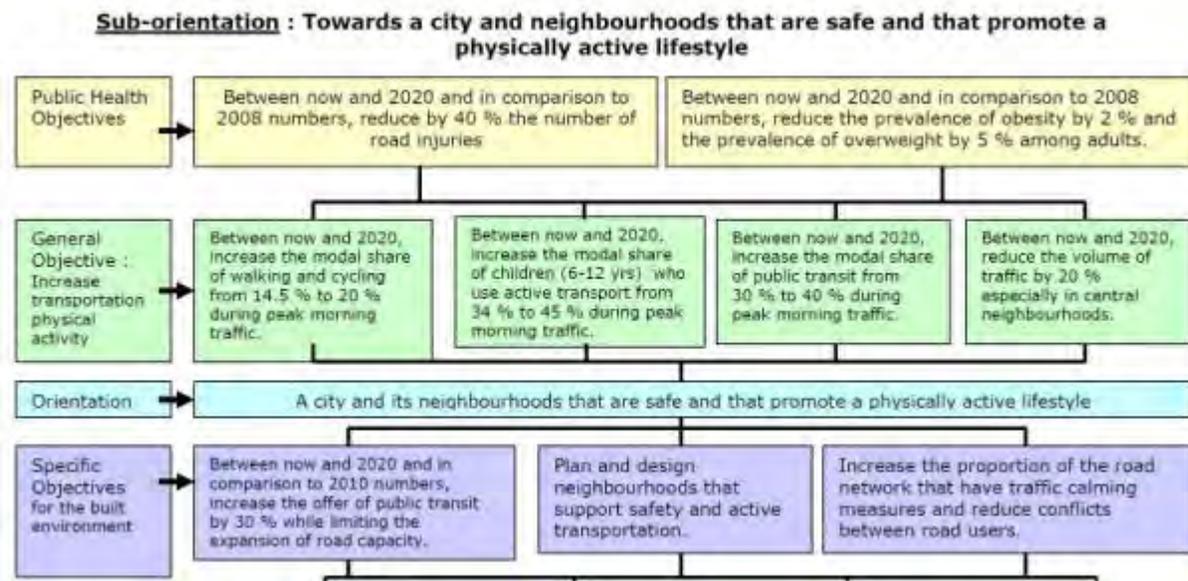
In Appendix 1 you will find a diagram and tables providing an overview of the logical framework of the DSP's EUS unit and directly linking the above areas of action to our strategic objectives.

**Question 3:**

**What policies have you been concentrating on and what is/are the rationales behind the choices that you made? For example, were your choices made on the basis of windows of opportunity, potential health impacts of those policies, specific needs to improve specific health outcomes, or other considerations?**

We are focusing on transportation and urban and road network planning policies which determine — as has been proven scientifically — the degree to which the objectives adopted in our logical framework (see Appendix 1) can be achieved. We are committed to these

objectives because of their implications for public health. Specifically, we are working on policies tied to the following objectives:



**Figure 2 DSP's EUS (urban environment and health) unit objectives**

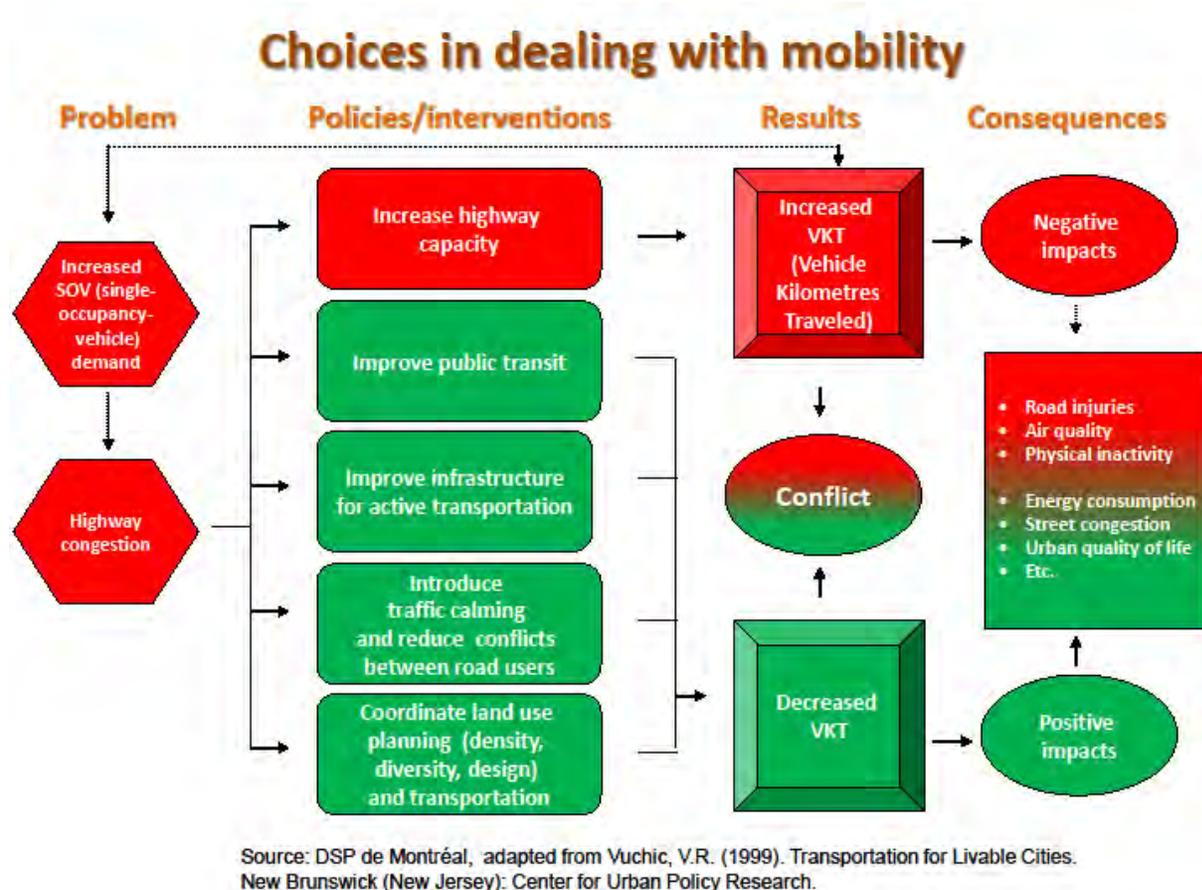
Essentially, our actions are aimed at increasing the modal share of active and public transportation. A modal shift, of even a few percentage points, on a population level can potentially have an enormous positive impact on the burden of chronic diseases. To contribute to such a modal shift, two types of policies must be developed:

1. Policies targeting land use planning, the availability of public transportation, traffic calming and additional infrastructure for active transportation. That is, urban development structured around public transportation infrastructure or transit-oriented development (TOD), of the kind described in the *Plan métropolitain d'aménagement et de développement* (Metropolitan land use and development plan) adopted in December 2011 by the Communauté métropolitaine de Montréal. This approach also supports the reorientation of urban development toward the densification of neighbourhoods designed to be more compact, with mixed functionality and greater connectivity.
2. Policies aimed at ensuring adequate funding for public transportation, such as those called for by the Alliance pour le financement des transports collectifs au Québec (TRANSIT) (Public transit funding alliance), which is partly funded by the DSP.<sup>20</sup> The support of all three levels of government (municipal, provincial and federal) is sought in this area.

The actions undertaken in relation to these policies benefit from the momentum created by public debate, which has intensified in recent months in Montréal due to the persistent and mounting traffic problems plaguing the region.

<sup>20</sup> See: [www.transitquebec.org](http://www.transitquebec.org) (in French only).

Figure 3 summarizes the rationale underlying our actions and the choice of public policies targeted by our team:



**Figure 3 Choices in dealing with mobility**

**Question 4:**

So far, you have not addressed the question of inequalities in your responses. Yet, this is one of the greatest concerns related to transportation, as is evident when considering your team’s work. In your view, which sub-groups of the Montréal population are most negatively affected by current policies and in what way? And how will the changes you are calling for affect them, in your opinion?

The health problems that we are facing – in particular, road injuries, cardio-respiratory problems and overweight – are partly the result of public policies which for over 40 years have promoted increased road capacity and encouraged urban sprawl. Central neighbourhoods, occupied by a population that is relatively disadvantaged socio-economically, are exposed to large volumes of traffic. The resulting poor air quality is associated with a greater incidence of respiratory disease. The ambient noise conditions that we are beginning to document are associated with discomfort and high blood pressure. The risk of road injury, in particular for pedestrians and cyclists, is higher in disadvantaged

neighbourhoods, where traffic is also heavier. The reality of this situation has, moreover, been described in a chapter of the latest annual report of the Director of Public Health.<sup>21</sup>

It is thus necessary to call into question the public policies that led to these developments, the negative impacts of which on population health, and above all, on the health of the economically disadvantaged, are today being measured. The DSP affirms the necessity for a massive investment in public transportation and in infrastructure that supports active transportation. The adoption of such policies tends to result in a modal shift toward active and public transportation, the benefits of which are multiple: better air quality, reduced traffic volumes, and higher levels of physical activity at the level of the entire population.

The modal shift resulting from these policies leads to improved mobility for everyone and in particular for those who, lacking private means of transportation and being poorly served by public transportation, have difficulty accessing public services (health, education, culture, etc.) and workplaces. Improving mobility by giving public transportation priority status and better funding leads to a reduction in travel times between work and home. The time gained, which will benefit the citizens of Montréal and those in the greater metropolitan region, can then be devoted to family and leisure activities. Thus, the transportation and urban planning public policies that we are promoting are likely to both reduce social inequalities and improve living and health conditions universally, across the population.

#### **Question 5:**

**As you mentioned previously, your CLASP project consists in large part in evaluating community programs of action that target the built environment – some of which are programs that you fund. Could you describe these programs (their scope, those who implement them, etc.) and explain why and how the DSP came to develop a funding program of this nature?**

The EUS unit of the Montréal DSP has developed, in collaboration with the Ville de Montréal, the Quartiers 21 program.<sup>22</sup> This program was developed in 2005-2006 as an outgrowth of the Plan de développement durable de la collectivité montréalaise (sustainable development plan for Montréal) (2005-2010), with which the DSP had been associated as a very active partner.

One of the targets of the Plan was the improvement of air quality in residential areas. This priority led toward, among other things, the development of sustainable mobility through traffic calming, the creation of environments that encourage walking, with nearby services (like public markets) and green spaces, and neighbourhood revitalization.

In the public health sector, the promotion of sustainable mobility had already at this time been identified as an important element of an effective strategy for combating obesity and road injuries. Given this context, community mobilization appeared to offer an indispensable way to influence public administrations and lead them toward the development of healthy public policies.

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<sup>21</sup> See: [http://publications.santemontreal.gc.ca/uploads/tx\\_ assmpublications/978-2-89673-131-2.pdf](http://publications.santemontreal.gc.ca/uploads/tx_ assmpublications/978-2-89673-131-2.pdf).

<sup>22</sup> See: <http://www.santemontreal.gc.ca/en/healthy-living/healthy-environment/quartier-21-program/>.

Each year, the Quartier 21 program selects four new community projects and commits to funding them for a period of three years, with \$30,000 allocated for the first year and \$50,000 for each of the two subsequent years. The projects are submitted following a call for offers and chosen by a selection committee formed jointly by the city and the DSP. Projects are selected on the basis of precise criteria explicitly detailed in the program's reference framework.<sup>23</sup> Projects can be presented by a local issue table or by a community organization. Each proposed project must necessarily be accompanied by a written confirmation of the CSSS's and the borough's support for the project. This support from local institutions, health-oriented on the one hand and municipal on the other, is seen as a gauge of the success of the projects we fund. There are currently 12 projects underway, at various stages of completion. The DSP invests \$350,000 annually and the Ville de Montréal, \$170,000.

#### **Question 6:**

**Many of the health authorities in Canada might be surprised by the scope and even the nature of the program you have described. In fact, few have the resources to devote to funding non-profit organizations for work on the built environment (and still fewer can devote as much) – which is perhaps combined in many cases with a certain discomfort associated with supporting organizations that do not formally belong to the public service apparatus. How can you devote this level of resources to funding this type of organization and how do you legitimize this approach within the Québec health network?**

The program we have developed is essentially based on the reference framework for community development produced by the Ministère de la Santé et des Services sociaux du Québec (MSSS) (Québec ministry of health and social services). This reference framework underlines the importance of community mobilization at the local level as a health promotion strategy. Community organizations, which constitute key actors in this context, receive significant support from the health and social services network, and this support takes many forms: provision of evidence that they can use to substantiate their arguments, funding for specific actions, and support for knowledge transfer and exchange activities that help them to analyze problems and seek effective strategies.

For several years, the MSSS has been transferring funds to the DSP so it can finance the implementation of specific programs, such as Sécurité alimentaire, Services intégrés en périnatalité et petite enfance (SIPPE) (programs that address food security and infancy and early childhood issues) and programs for the prevention of violence against women— all programs that include a major component focused on community mobilization aimed at creating favourable environments.

Drawing on the funds transferred by the MSSS as part of the government's actions in support of community mobilization, the Montréal DSP decided five years ago to allocate renewable funding to work that promotes active, safe neighbourhoods. Thus, an annual sum of \$417,000, managed by the Environnement urbain et santé unit of the DSP, is allocated to

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<sup>23</sup> See: [http://ville.montreal.qc.ca/pls/portal/docs/PAGE/D\\_DURABLE\\_FR/MEDIA/DOCUMENTS/LE%20CADRE%20DE%20REFERENCE%20Q21%20-%20MILLER%20-%20VDM\\_0.PDF](http://ville.montreal.qc.ca/pls/portal/docs/PAGE/D_DURABLE_FR/MEDIA/DOCUMENTS/LE%20CADRE%20DE%20REFERENCE%20Q21%20-%20MILLER%20-%20VDM_0.PDF) (in French only).

local and regional community mobilization projects that promote active and safe neighbourhoods.

**Question 7:**

**When was the reference framework for supporting community action developed by the MSSS? And which actors helped to define it in this manner? Did they meet with resistance to its acceptance?**

The reference document is the 2008 update of the Programme national de santé publique (Québec's public health program), published by the MSSS in the same year.<sup>24</sup> One strategy for supporting its implementation is to support community development; this is made very explicit on pages 61 to 65, along with a range of references. It would be necessary to consult the people from the MSSS who wrote this chapter to learn which actors were consulted.

**Question 8:**

**What aspects of the CLASP project have been effective?**

The Montréal CLASP project, which focused on community mobilization initiatives and their impact on the promotion of sustainable mobility, made it possible to bring together actors from various local and regional sectors to develop a shared understanding of the problem, examine the relevant research, and identify courses of action likely to maximize the effect of NGO projects on sustainable mobility.

In the two sectors studied (Centre-Sud and Mercier-Est), the various social actors, whether from NGOs or institutions, gained an understanding of how their work, as determined by their specific missions and responsibilities, contributed to sustainable mobility by addressing one or the other of its dimensions. The process of developing a common vision of sustainable mobility culminated in meetings of groups of experts, during which the expertise of resource persons from outside each neighbourhood was combined with that of local actors.

The aim of the CLASP project was to determine how the potential influence of NGOs on local mobility could be maximized. To this end, the meetings of groups of experts allowed for strengthening of the ties between stakeholders, both institutional and community-based, particularly with regard to the production and exchange of data, an activity necessary to the achievement of a true partnership. Representatives from the institutional sector came from the academic community (École Polytechnique), the health sector and several departments of the central city or the borough (urban planning, transportation, public works, sports, recreation and social development). It was the first time that citizens, representatives of community groups, elected officials, public sector stakeholders, with professional expertise in a variety of disciplines (urban planning, social work, engineering, architecture, public health, administration, etc.) had met together to exchange views on the project's focus.

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<sup>24</sup> See the updated version at: <http://publications.msss.gouv.qc.ca/acrobat/f/documentation/2008/08-216-01.pdf> (in French only). See the original English document at: <http://msssa4.msss.gouv.qc.ca/en/document/publication.nsfff52dbec0b2ed788852566de004c858418bad42cc1a754e98525753c00650c3b?OpenDocument>.

The participants had access to key data on the components of the built environment that promote sustainable mobility and active transportation and that help reduce the incidence of chronic diseases and injuries (Cf. see figure shown in Appendix 2). This information was contextualized according to the various levels of intervention, so as to highlight the necessary interconnectedness of the interventions of local actors (in this case NGOs) and of actors who intervene at the regional or metropolitan level (Cf. see figure shown in Appendix 3). The participants also identified the information gaps that need to be filled and the indicators that should be followed – for example, relative to noise, air quality, the proximity of services, and local consumption, as well as to citizens' perceptions of the built environment. The DSP could moreover, manage this information system, which is open and useful to all stakeholders concerned with promoting sustainable mobility, at the local or regional level.

Through the CLASP project, it was possible to combine information from administrative databases with complementary information collected in the field using a systematic observation tool designed to assess walkability in the two neighbourhoods studied.

The production of a diagnosis should lead to interventions in the built environment, the management of which clearly falls to municipal authorities (in the central city or borough). However, citizen input is essential to identifying local issues and priorities, which inform the final form taken by local development plans and influence their integration into the municipal urban plan. The mobilization of the community and the partnerships established with municipal actors will ensure greater harmonization between infrastructure projects developed at the central level and local needs, for example as related to traffic-calming measures. Taking into account citizens' priorities and incorporating these into action plans fosters the social acceptability of projects targeting sustainable mobility.

The evaluation of results is an activity that falls squarely within the mandate conferred on the DSP.

The CLASP project thus created a dynamic among local and regional actors, allowing them to specify the role each could play in promoting sustainable mobility.

Lastly, participation in the pan-Canadian CLASP project created a network of communication with partners in other large cities and regions of the country, providing the Montréal DSP with the opportunity to share with them the results of research and interventions.

## CONCLUSION

Before we began interviewing professionals from the health authorities involved in the Healthy Canada by Design coalition, we determined with them that the interview questions would cover four dimensions of their work aimed at influencing public policy. As stated in the introduction, this interview project consisted of:

1. closely examining the pragmatic context surrounding their efforts to influence public policies that affect the built environment, in general, and their activities as part of the CLASP project, in particular;
2. examining the expected and observed effects of their efforts by comparing these to the logic model developed by each health authority;
3. taking stock of what was learned through these efforts; and
4. exploring the policy-related implications of their actions.

These interviews provide much food for thought for other health authorities that are attempting to influence public policies that affect the built environment, or that are planning such actions. It should be noted that the health authorities who answered our questions differed in terms of the available human and financial resources available to them, as well as in terms of their past experiences in this area. This diversity reflects the practice conditions in a wide range of health authorities, and these interviews constitute a resource for strategic reflection on the four targeted dimensions. Moreover, such reflection may prove useful to all health authorities, not only to those in large urban centres.

The aim of this section is not to synthesize the diversity of views expressed by our respondents. It would be difficult, if not futile, to try to reduce their experiences to common denominators; this would only obscure the wealth of experience represented by the wide variety of approaches taken by health authorities. Rather, the aim here is to draw the reader's attention to certain choices made by the health authorities, to some of the effects on population health and its determinants, to certain policy dimensions, and to the ethical issues raised by these projects.

### Common concerns

When reading the responses, one may note that all the health authorities promote the densification of land use, and increase in mixed use (residential, services and workplaces, in particular) and, for some health authorities, connectivity of the public road network for cycling and walking. While the range of their efforts is not limited to these dimensions, such concerns are relevant to different levels of planning. Our respondents' focus on these dimensions is easily explained. The characteristics of the built environment largely determine the number of kilometres travelled in a given urban centre to transport people and goods, along with modes of travel used. This includes modes of access to goods and services for the members of a given population. This has a significant impact on population health, in general, and on the health of certain groups, in particular. For example, when active and public transportation make up a greater share of total transportation, various goods and services become more accessible to persons without means of individual motorized travel.

Such increased accessibility may mean, for example, fewer and smaller food deserts and less of the food insecurity with which they are associated. This principle also applies to a number of other goods and services that promote good health. The promotion of these characteristics is an integral part of current broad trends in urban planning and mobility planning, trends that are now quite widespread in Canada, even in its most rapidly developing and expanding urban centres. However, their operationalization through urban planning policies generates at least two main types of challenges or questions for public health actors: (1) how can we help integrate these principles into the planning process and implement them in projects; and (2) what can be said about the qualitative aspects of the developments these principles will inform? The following text provides some thoughts on these issues.

### **From principles to their operationalization**

Regarding the first issue, our interviews reveal that we should expect no major opposition to the promotion of these principles. The issue of political acceptability will revolve more around the extent of the changes required (in terms of the details of urban planning or development schemes and how projects are prioritized) than the broader policy aims. In other words, when health authorities promote these characteristics, the positions they take and the policies they propose seem to be in step with overall trends in contemporary urban planning. The urban development approach that was based on unlimited urban sprawl, functional separation of residential, commercial and employment areas, and a dominant, if not exclusive, focus on motorized traffic seems to have been relegated to the past in Canada's large urban centres. For example, Edmonton, one of Canada's fastest developing and spreading urban centres, has adopted urban planning and transportation guidelines that are very much in line with the principles described above.<sup>25</sup> Thus, future disagreement and debate over policies will very likely centre on the scale and speed of efforts dedicated to densification, creation of mixed land use, and promotion of active and public transportation. It can also be assumed that disagreement will be even more intense around the actual projects and specific installations through which these principles are to be concretely implemented. Planning debates are not likely to revolve around questions like "Should we densify our city or allow urban sprawl to continue unrestricted?" or "Should we create functionally diverse sectors or maximize segregation?" Rather, debate is much more likely to focus on pivotal points such as: In a given sector, should the imposed standard be *x* businesses or *y* businesses per hectare? Should we reduce, maintain, or increase road capacity on a given segment of the highway network? Should we reclaim the space devoted to car parking on a given road to create a bike path? Should we install a tramway (and reduce the space devoted to individual motorized traffic) on a given public roadway, or should we opt for an underground system instead? Should we impose minimum densities in given sectors of the city, or should we establish an urban perimeter? If so, where and how?

Health authorities should presumably be asking themselves if they wish to be involved in these political dynamics in order to influence the specific objectives of municipal or regional plans or specific projects and then evaluate how this can be achieved. The Direction de santé publique (DSP) de Montréal, the city's public health authority, has already taken a

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<sup>25</sup> See: [http://www.edmonton.ca/city\\_government/documents/land\\_sales/TransportationMasterPlan.pdf](http://www.edmonton.ca/city_government/documents/land_sales/TransportationMasterPlan.pdf).

position in this area and led discussion forums on highway projects. For example, it has proposed very specific objectives with respect to vehicle-km travel at the municipal level. The Peel and Toronto regions have decided to intervene in the real estate development process by promoting tools for evaluating the impact of projects: a health impact analysis framework and health impact modelling software, respectively. Should these experiences be repeated elsewhere? Should they be tried in other types of projects, using the same or different tools and processes? Based on our interviews, these are some of the issues that public health actors should be addressing.

The principles of densification, mixed land use and connectivity promoted by the health authorities seem well-accepted in their respective communities, apart from very real disagreements over the intensity of such efforts and about specific projects. Qualitative aspects of the proposed developments – the second question – are also subject to ongoing debate. At issue is not only their overall effects, but also specific effects, such as their effects on inequalities. For example, the densification of urban environments is clearly a vector for many different beneficial effects on public health, but densification can also produce less desirable effects in this area. In fact, densification can lead to a significant increase in the *mineralization* of urban areas, which means an increase in the presence of concrete, cement and asphalt infrastructure relative to what is referred to as the natural environment, or green spaces. Such mineralization may create more heat islands, for example. It can also lead to an increase in surface runoff and thus overload municipal wastewater collection and treatment facilities (Lafontaine-Mercier, Olivier, & Chicoine, 2010). As for inequalities—reported by all the health authorities as a major concern—, densification may also eliminate spaces that are or can be used for agricultural purposes by populations experiencing food insecurity. Much work is required on how the principle of densification will be implemented in a particular city and the way in which this implementation will affect its built environment. Public health actors need to learn how to identify and negotiate this space in order to optimally promote their policy options.

### **An intervention at the scale of a single building and in the health sector**

Work by the Vancouver Island Health Authority (VIHA) on the redevelopment of a hospital in Victoria is of interest for at least two reasons. Whereas other health authorities focus primarily on municipal and regional scales of development, the work of the VIHA serves as a reminder that work at the scale of a single building offers many opportunities to transform planning practices and policies. This scale of intervention seems all the more relevant given the fact that a single building project can often serve as a significant catalyst for spatial reorganization.

On the other hand, the work of the VIHA rests on the idea, not yet widespread, that it is possible to optimize performance on the level of environmental health of establishments within the health network. This can be achieved by changing the development and redevelopment practices and policies related to these sites themselves, along with their relationship to their environment. With regard to this last point, the VIHA's work demonstrates that it is possible to enact such change by directing travel to and from a site toward soft modes of travel (to borrow a term used in France, meaning modes that have less impact on their surrounding communities and on the environment in general). This project also serves

as a reminder that work on the built environment need not be just intersectoral in nature – the health network itself is an active and, in many places, a major participant in shaping the spatial organization of our societies. This is true of the development of health facilities themselves as well as for site selection at the regional and provincial levels. Perhaps health authorities could demonstrate leadership through their work within the health network, in parallel with intersectoral interventions. Our respondents suggested that such work may facilitate the kind of collaboration that all health authorities seek. It may also offer the real benefit of facilitating the work of other sectors of activity. This includes allowing them to modify practices and policies – for example, by generating less automobile traffic, and thus reducing the pressure on transportation planners to accommodate traffic.

### **Determining policy objectives and types of change**

In the field of public policy, a distinction is often made between paradigmatic and normal changes (Howlett, Ramesh, & Perl, 2008). Our respondents called for both of these types of policy change. Because the objectives of the DSP de Montréal are very explicit and appear to call for both types of change, they will serve as examples in this discussion of the political viability and public health issues underlying calls for these two types of change. As an example of a call for paradigmatic change, the DSP of Montréal is calling for a 20% reduction by 2020 (using 2008 as its baseline) in the number of kilometres travelled by automobile on the island of Montréal (see Appendix 1). However, for several decades Montréal's transportation policy has consisted primarily of ensuring traffic fluidity for a continually increasing number, in absolute terms, of vehicle-kms travelled by car or truck. This clearly suggests a need for paradigmatic change. At the same time, this health authority is calling for an increase in the modal share of public transportation in Montréal, from 30% (in 2008) to 40% (in 2020) (see Appendix 1). This objective does not necessarily involve paradigmatic change, since the modal share of public transportation in Montréal can be increased while maintaining a measure of fluidity for cars and trucks that accommodates a growing number of vehicle-kilometres. Indeed, this phenomenon has been observed in most of Canada's large urban centres (the exception being Vancouver, which has experienced an increase in the modal share of public transportation at the same time as a decrease in the number of vehicle-kilometres travelled). With perhaps a few exceptions, the number of vehicle-kilometres travelled in Canadian cities continues to increase despite increases in the modal share of public transportation.

These two objectives and the corresponding types of change they require are likely to carry very different implications for both political viability and public health. With regard to political viability, it seems fairly clear that proposals for large-scale paradigmatic change are often less well received. They significantly shake up the established order (i.e., the interests, ideas and values of the other actors working in a policy field). There is often a delay of several years, if not decades, between the appearance of such a proposal and its large-scale implementation, and such an implementation often follows from more local paradigmatic changes or from significant shocks that challenge the objectives, standards and assumptions of existing ways of doing things (Sabatier & Jenkins-Smith, 1999). In Vancouver, for example, since the early 2000s transportation policy has been based on two principles: a refusal to increase road capacity and the decision to improve the services and infrastructure underpinning active and public modes of transportation, instead. This policy followed in the

wake of significant and successful opposition, in the 1970s, to the construction of highway infrastructure through the city centre, and it has since been buoyed by a series of relatively local interventions (for example, the residential densification of certain central sectors). The result is a city in which the importance assigned to car travel is relatively modest. All these events have facilitated the viability of this new policy direction.

In regards to population health and its determinants, it seems likely that these two objectives and the types of change they represent will also have different effects in this area. Continuing with the same example, an increase in the number of vehicle-kilometres travelled can be expected to result in an overall increase in air and noise pollution and the number of personal injury collisions. Increased concern about safety may, in turn, lead to a decrease in the amount of active travel. Overall, one may expect that a reduction in the number of vehicle-kilometres travelled would have, more or less, the opposite effect. This is therefore a major policy issue, with ethical implications on which public health actors should focus.

### **Options for public action, between evidence and context**

The issue of evidence is raised by several of the our respondents. They often express the importance of ensuring that there is evidence to support the policy options they promote. At the same time, they point out that these proposals must be adapted to the various contexts in which they are implemented. Fraser Health (FH), for example, points out that the evidence they submit to other policy actors must be drawn from environments that closely resemble those in which the actors work (reply to question 4, page 26). In fact, this dual attachment – to evidence and context – represents a point of tension related to the promotion of healthy public policy. For several reasons, this tension is easy to identify but difficult to eliminate. To examine just two of the more important reasons, consider the example of a scientific study that points to fairly clear connections between the implementation of various interventions in the built environment — such as bike paths, traffic calming and bike parking facilities — and the level of cycling activity observed in various countries and cities (Pucher & Buehler, 2008).

This tension between evidence and context is difficult to resolve in part is due to the "ecological" nature of such interventions. This makes them difficult to study using the scientific methodologies typically used in the health sciences known to be sufficiently valid and reliable to produce evidence. Pucher & Buehler did not attempt to isolate an intervention to verify its effects using double-blind observation in a well-defined place and time frame. Instead, they described the use of bicycles in various countries and asked government officials in the countries with the highest levels of use – Germany, Denmark, and the Netherlands – about the interventions they had implemented. Thus the article draws attention not only to the infrastructure it describes but also to the various programs, educational activities, fiscal instruments and other measures that were also implemented in these countries. The result is a substantial list of interventions – which may have been quite different if they had applied another analytical methodology – but without offering the possibility to conclude that one or another is valuable or less valuable, whether certain combinations produced effective synergies, or if there are thresholds beyond which effectiveness is achieved, etc. For example, the NCCHPP's review of the literature on traffic calming did not allow us to conclude that the research reviewed produced any evidence that this type of intervention encourages bicycle travel (Bellefleur & Gagnon, 2011), even though

countries with high levels of bicycle use systematically implement traffic-calming measures (Pucher & Buehler, 2008). For example, the literature provides little information on other phenomena and processes that may influence levels of bicycle use: trends in fuel costs, demographic changes, and other factors. The generally accepted standards that allow results to be presented as evidence are often not met, since the context of interventions studied is difficult to define and “neutralize” in order to assess their specific effects. There is no clear solution to this problem. For example, analyzing the decrease in the number of vehicle-kilometres travelled in motorized vehicles in the city of Vancouver in recent years would quite likely require identifying a series of interventions. It would be impossible to isolate the effects of these interventions one from another or to place them in hierarchical order, and it would be impossible to discern more or less optimal combinations. Public health actors must learn to “make do” with this type of data; that is, to identify those interventions whose intervention logic is plausible and has been validated in other contexts, and to accept and make use of other standards of judgment about what qualifies as evidence.

A second reason that makes this tension difficult to overcome has to do with the scale of the effects about which we seek evidence. Taking the same example, Pucher & Buehler point out that the shift in the modal share of bicycle travel took place over several decades, corresponding to the period in which interventions were carried out to promote this mode. The same can be said of the process that established car travel as the dominant mode of transportation in Canadian cities – it has taken place over many decades. This process has been underway for 70 or 80 years. It began with the mechanization of traffic signals in the 1930s, then followed by the development of the road code and highways beginning in the 1950s and, more generally, by a continual and ongoing increase in the capacity of road networks through many other engineering techniques. One way or another, changes in public policy that affect the built environment occur, and their effects are felt over extended periods of time. While it will continue to be important to measure these changes and to evaluate their effects in a given context, one must not lose sight of the fact that these are extended time scales.

Because of the richness of the responses provided, the interviews offer many opportunities for further reflection on the subjects covered. The choices made by our respondents raise numerous issues and challenges that should be addressed by professionals working in other health authorities so that the work of influencing public policies that affect the built environment can be pursued in an optimal manner. Only a few of these issues and challenges have been examined here. Thus, we invite readers of these interviews to use this document as a springboard for strategic reflection tailored to their own organizational, health and policy contexts, as well as to other contextual factors. This was its intended purpose.

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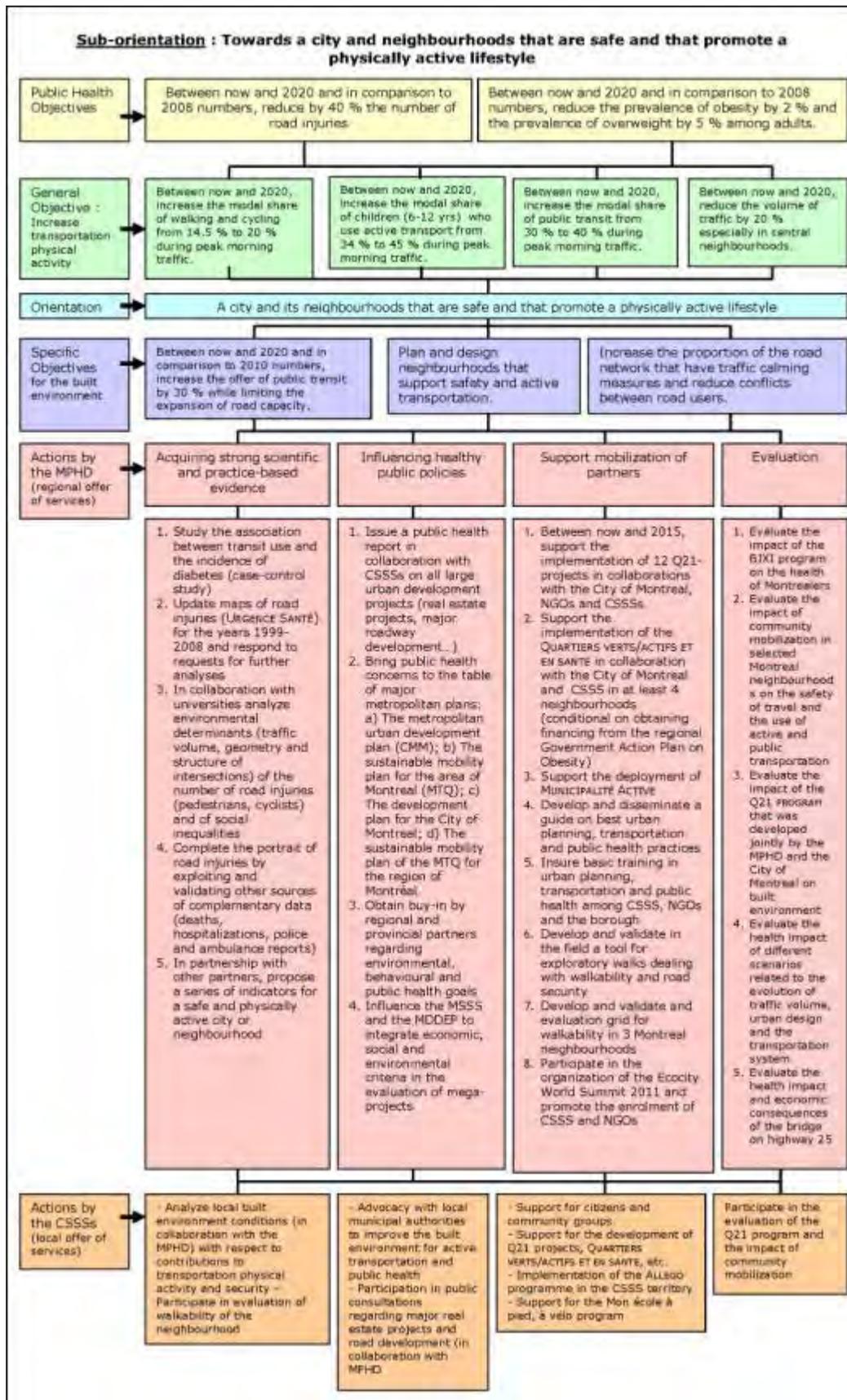
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## **APPENDIX 1**

### **ENVIRONNEMENT URBAIN ET SANTÉ UNIT OF THE DIRECTION DE SANTÉ PUBLIQUE DE MONTRÉAL : LOGICAL FRAMEWORK AND LINKAGES TO STRATEGIC OBJECTIVES**





<b>Objectives and indicators</b>	
<b>i. Outcome objectives</b>	
<b>Health objectives</b>	<b>Indicators</b>
1) Between now and 2020, reduce by 40% <sup>a</sup> the number of road injuries, relative to 2008	<ul style="list-style-type: none"> <li>– Number of injured (transported by ambulance) per road accident (pedestrians, cyclists, vehicle occupants)</li> <li>– Number of deaths due to road accidents (pedestrians, cyclists, vehicle occupants)</li> </ul>
2) Between now and 2020, reduce by 2% the prevalence of obesity and by 5% that of overweight among adults, relative to 2008	<ul style="list-style-type: none"> <li>– % of persons from 12-17 years old suffering from overweight (that is, with BMI between 25 and 30)</li> <li>– % of adults suffering from overweight (that is, with BMI between 25 and 30)</li> <li>– % of persons from 12-17 years old suffering from obesity (that is, with BMI &gt;30)</li> <li>– % of adults suffering from obesity (that is, with BMI &gt;30)</li> </ul>
<b>Objectives related to active transportation</b>	<b>Indicators</b>
1) Between now and 2020, increase the modal share of active travel (walking and cycling) among the Montréal population (5 years old and over) from 14.6% to 20% during the morning peak period (ppam) <sup>b</sup>	<ul style="list-style-type: none"> <li>– Modal share of active travel during morning peak period (ppam)</li> </ul>
2) Between now and 2020, increase the modal share of children (6-12 years old) who travel to school by active means from 34% to 45% during ppam	<ul style="list-style-type: none"> <li>– Modal share of 6 to 12 year olds travelling to school by active means during ppam</li> </ul>
3) Between now and 2020, reduce by 20% (relative to 2008) the number of trips made by automobile on the island of Montréal during ppam and the number of km travelled	<ul style="list-style-type: none"> <li>– Number of VKT (vehicle kilometres travelled)</li> <li>– Number of trips made by automobile in Montréal or from off-island to Montréal during ppam</li> <li>– Fuel consumption on the island of Montréal<sup>c</sup></li> <li>– % of households with at least one vehicle</li> </ul>
4) Between now and 2020, increase the modal share of public transportation (PT) used by the population of Montréal from 30% <sup>d</sup> (in 2008) to 40%, during ppam	<ul style="list-style-type: none"> <li>– Modal share of trips made using PT in Montréal during ppam</li> </ul>

<sup>a</sup> Objective of the Ville de Montréal's transportation plan.

<sup>b</sup> Enquête O-D 2008: during ppam, Montréal residents make 139,074 trips using an active mode and 806,744 motorized trips.

<sup>c</sup> Indicator selected for assessing the state of the environment, to follow up on the Montréal Community Sustainable Development Plan.

<sup>d</sup> According to Enquête O-D 2008, there were 942,830 trips made during ppam (all modes, all purposes) in Montréal; of this number, 286,401, that is, 30%, were made using public transportation.

Specific objectives related to effective strategies tied to the built environment	Indicators
1) Between now and 2020, increase public transportation (PT) services (km covered by bus, metro, tramway) by 30% <sup>e</sup> relative to 2010	<ul style="list-style-type: none"> <li>– Annual ridership of buses, metro and trains linking Montréal to its suburbs</li> <li>– Rate of PT coverage (percentage of the population living less than 500 m from a bus stop or train station)</li> </ul>
2) Plan and develop neighbourhoods that promote active transportation and safety <ul style="list-style-type: none"> <li>a) Slow urban sprawl</li> <li>b) Ensure that neighbourhoods, particularly when developing new projects, respect planning criteria that promote safe active transportation, taking into account residential density, mixed land use and function, and proximity to public transportation</li> <li>c) Double the cycling network<sup>f</sup> relative to 2006</li> </ul>	<ul style="list-style-type: none"> <li>a) Population of Montréal relative to the population of the metropolitan region</li> <li>b) Residential density: No. of housing units per hectare               <ul style="list-style-type: none"> <li>– % of households with access to basic services less than 500 m away (grocery store, school, clinic, ...)</li> <li>– % of households with access to a PT line (10-minute frequency) less than 500 m away</li> <li>– % of households with access to east-west and north-south bike paths less than 500 m away</li> <li>– % of businesses with 100 employees or more located less than 500 m from a PT line (10-minute frequency)</li> </ul> </li> <li>c) Km of bike network (paths, lanes and designated pavement)</li> </ul>
3) Increase the proportion of the road network (local and collector streets and arteries) where traffic-calming measures and measures to reduce conflict between road users have been introduced	<ul style="list-style-type: none"> <li>– Number of traffic-calming interventions per km of the road network, by borough</li> <li>– Number of kilometres of calmed roads (to be verified)</li> </ul>

## ii. Implementation objectives (regional services offered) 2011-2015 – DSP

### Area of activity 1: Acquiring evidence

Objectives	Indicators
1) Study the impact of public transportation on the incidence of diabetes (case-control study)	<ul style="list-style-type: none"> <li>– Completed study</li> </ul>
2) Make available to road safety partners of the DSP the updated map of road injuries for the years 1999-2008 and respond to all requests for further analyses	<ul style="list-style-type: none"> <li>– Completed map</li> <li>– Number and origin of requests/year</li> </ul>
3) In collaboration with universities analyze environmental determinants (traffic volume, geometry and structure of intersections) of the number of road injuries (pedestrians, cyclists) and of social inequalities	<ul style="list-style-type: none"> <li>– Completed report</li> <li>– Number of scientific articles</li> <li>– Number of meetings with partners</li> </ul>

<sup>e</sup> According to their Plan stratégique 2020, the STM aims to increase services by 31.7% between 2010 and 2020.

<sup>f</sup> Montréal's Plan de transport (p.105) set forth in 2007 the objective of increasing the cycling network from 400 to 800 km in 10 years.

Objectives	Indicators
4) Complete the portrait of road injuries by exploiting and validating other sources of complementary data (deaths, hospitalizations, police and ambulance reports)	– Reports
5) In partnership with other partners, propose a series of indicators for a safe and physically active city or neighbourhood	– List of indicators
6) Study the walkability of 4 neighbourhoods relative to their modal share of active and public transportation	– Production of 4 research reports
<b>Area of activity 2: Influencing healthy public policies</b>	
Objectives	Indicators
1) Issue a public health report in collaboration with CSSSs on all large urban development projects (real estate projects, major roadway development)	– Number of papers/year – Number of public health recommendations taken into account in the project
2) Bring to the table public health concerns relating to, in particular: a) The Plan métropolitain d'aménagement et de développement (CMM – Metropolitan land use and development plan) b) The sustainable mobility plan for Montréal (MTQ) c) The urban development plan for Montréal	– Concerns taken into account in the plans
3) Obtain support of regional and provincial partners for environmental, behavioural and public health goals	– Partners express commitment to these goals
4) In collaboration with local and regional partners (Ville de Montréal, STM, CMM), assert the need for substantial and structuring funding of public transportation from higher level governments	– Collaborative actions carried out for the purpose of obtaining from higher level governments the necessary funding for public transportation
5) Persuade the MSSS and the MDDEP to integrate economic, social and environmental criteria into evaluations of mega-projects	– Explicit presence of three types of sustainable development criteria in evaluation designs
<b>Area of activity 3: Supporting the mobilization of partners</b>	
Objectives	Indicators
1) Support the implementation by 2015 of 20 Quartier 21 projects in collaboration with the Ville de Montréal, NGOs and CSSSs	– Number of projects implemented and funded – Support provided: fact sheets, training workshops, number of meetings of technical and steering committees
2) Support the implementation of the <i>Quartiers verts/actifs et en santé</i> program (Green/active and healthy neighbourhoods program), in collaboration with the Ville de Montréal, the Centre d'écologie urbaine de Montréal (Montréal's urban ecology centre) and the CSSSs in at least 4 Montréal neighbourhoods (conditional on obtaining funding from the regional Government Action Plan)	– Number of projects implemented

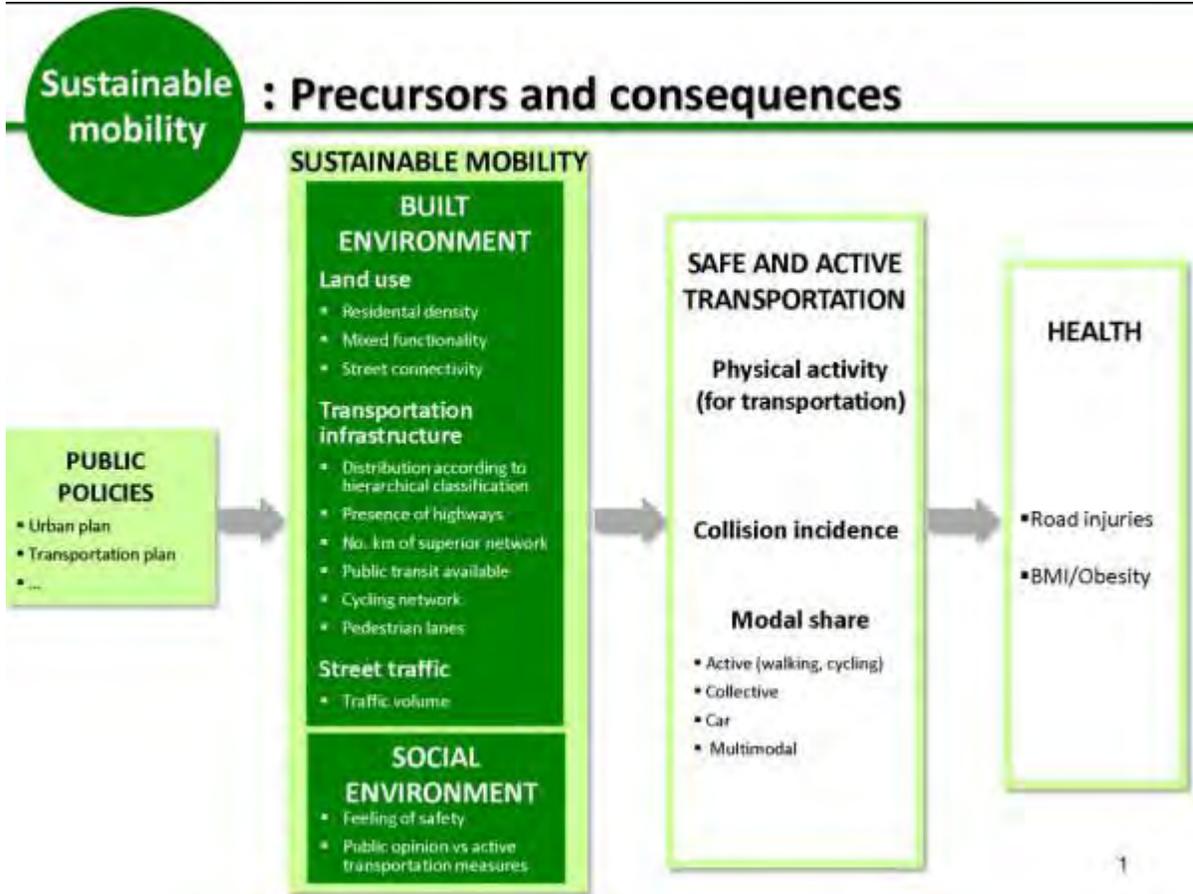
Objectives	Indicators
3) Support the implementation of the <i>Municipalité active program</i>	– Number of boroughs and cities made aware and number of subscribers to the program
4) Make available to partners a guide to best practices in urban planning, transportation and public health	– Guide to best practices
5) Ensure basic training in urban planning, transportation and public health among CSSSs, community organizations and boroughs	– Number of training sessions – Number of participants
6) Develop and validate in the field a tool for exploratory walks assessing walkability and road safety	– Development of tool
7) Develop and validate an evaluation grid for assessing walkability in 3 Montréal neighbourhoods	– Development of grid
8) Participate in the organization of the Ecocity World Summit 2011 and promote the registration of CSSSs and community partners	– Number of partners who registered
<b>Area of activity 4: Evaluating</b>	
Objectives	Indicators
1) Evaluate the impact of the BIXI program on transportation habits, on the risk of injury and on public opinion among Montréalers in favour of policies aimed at promoting active transportation	– Evaluation report – Number of scientific articles – Number of meetings with partners – Improvement of BIXI program
2) Evaluate the impact of community involvement in sustainable mobility projects (implementation of measures aimed at making travel safe and at promoting active and public transportation) and assess the potential effectiveness of the measures	– Interactive mapping of NGO projects affecting the built environment and sustainable mobility (periodically updated) – Walkability diagnosis (2 neighbourhoods) – Tools for assessing walkability – Local forums – Evaluation report – Synthesis report – Articles and scientific communications – Improved practices
3) Evaluate the impact of the Q21 program (2 <sup>nd</sup> phase), jointly developed by the DSP and the Ville de Montréal, on the built environment, the organization of collective action, public opinion and feelings of collective effectiveness related to public policies aimed at developing sustainable communities	– Evaluation report – Number of meetings with partners – Improvement of the Q21 program
4) Evaluate the health impact of different scenarios related to the evolution of traffic volume, urban design and the transportation system	– Completed study

<b>iii. Implementation objectives (local services offered) 2011-2015 – CSSSs</b>	
<b><u>Area of activity 1: Acquiring evidence</u></b>	
<b>Objectives</b>	<b>Indicators</b>
1) Analyze conditions of the local built environment with regard to their contribution to active transportation and safety (in collaboration with the DSP)	– Number of studies completed
2) Participate in evaluation of neighbourhood walkability (in collaboration with the DSP)	
<b><u>Area of activity 2: Influencing healthy public policies</u></b>	
<b>Objectives</b>	<b>Indicators</b>
1) Lobby local municipal authorities to improve the built environment on the levels of transportation, planning and public health	– Number of appeals and types of impact on the built environment
2) Participation in public consultations on major road development and real estate projects (in collaboration with DSP)	– Number of papers submitted
<b><u>Area of activity 3: Supporting the mobilization of partners</u></b>	
<b>Objectives</b>	<b>Indicators</b>
1) Support for citizens and community groups	– Number of persons and groups helped
2) Support for the development of Q21 projects, for <i>Quartiers verts/actifs et en santé</i> (Green/active and healthy neighbourhoods), etc.	– Number of projects supported
3) Implementation of the Allegro program in the CSSSs	– Number of participants enrolled in Allegro
4) Support for the <i>Mon école à pied, à vélo</i> program (To school on foot, by bike program)	– Number of schools in which the program has been implemented with the support of CSSSs
5) Participation in training in transportation, planning and public health	– Number of participants enrolled by CSSSs
<b><u>Area of activity 4: Evaluating</u></b>	
<b>Objectives</b>	<b>Indicators</b>
1) Participation in evaluation of the Q21 program and of the impact of community mobilization	– Number of completed studies

## **APPENDIX 2**

**DIRECTION DE SANTÉ PUBLIQUE DE MONTRÉAL  
SUSTAINABLE MOBILITY: PRECURSORS AND CONSEQUENCES**



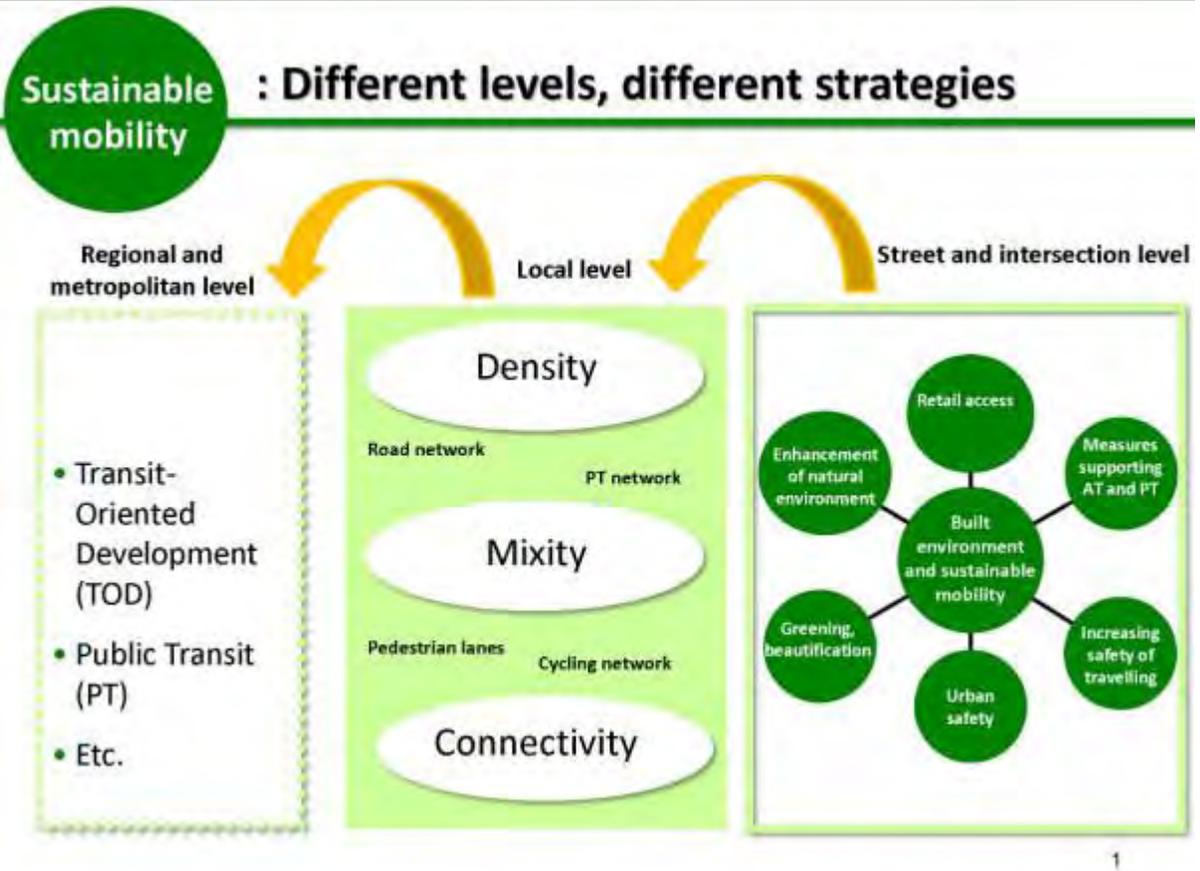




## **APPENDIX 3**

**DIRECTION DE SANTÉ PUBLIQUE DE MONTRÉAL SUSTAINABLE  
MOBILITY: DIFFERENT LEVELS, DIFFERENT STRATEGIES**







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